

## California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

JUNE, 1903.

### EDITORIAL NOTES.

We presume the committee which advised, in its report, that editorials in the JOURNAL should refer only to scientific subjects "SCIENTIFIC" gave this advice after proper EDITORIALS. consideration, and we hope that the Society adopted it in the same way. But for the Publication Committee the restriction looms up as a sort of specter in the way to bar passage. Who has the time, in this busy life, to work out papers on the historical and statistical sides of scientific subjects, the sides usually considered in editorial columns, unless there be a special task set and a remuneration offered? And even if the Publication Committee could or would present to the Society a series of such papers, who would read them, and what good could they do the Society? Would they win us one good member? The Committee believes that it will have to construe the term "scientific" in a somewhat liberal way, for there are many subjects, germane to the government and improvement of the Society, which the Committee finds readily at hand, and which it wishes to lay before the society for consideration by its members. There are not many easily managed purely scientific subjects, and there is no time for the management of the hard ones.

It must not be inferred that the Committee believes it has a mission, or is about to set on foot any special scheme; it has neither mission nor scheme; but it is very much in earnest about the successful management of the JOURNAL. It intends that a journal published by the Society shall be for the Society, and that it shall be quite alive all the time. It cannot do this if it is only permitted, or if it only permits itself, to refer editorially to purely scientific subjects. It must deal with subjects which it will classify under the heading of social science or Society science—that is, the science of upbuilding this Society in all possible ways, so that it can be of use and do

good in every conceivable manner. The Committee does not believe that the members will object to this interpretation of the instructions of the Society, but it asks that if the Committee's course is objectionable, those who object will state their grounds for objection, and it promises these its careful consideration. The Committee is aware that it was appointed to serve the Society, not to control it.

The State Society, by a vote of twenty-six to four, has recorded its approval of the present

THE BOARD OF EXAMINERS. medical licensing law, and its disapproval of any attempt to modify it by placing the control of the Board of Examiners

ers in any hands other than those of the medical profession. The attack upon the law was but poorly masked under the guise of an attack upon an individual member of the Board, and its failure is not regarded as the failure to defeat an objectional individual, but as the last move of a most carefully laid plan to tear down somewhat from the protective wall placed about the public by the passage of the last medical practice act. Very few people were at any time deceived.

The necessity of medical supervision of the milk supply of cities as urged in the paper read by Dr. George H. Evans at the

MILK SUPPLY SUPERVISION. recent meeting of the State Society at Santa Barbara, and which will appear in full in the

next issue of the JOURNAL, receives special and urgent emphasis at the present time, because of the appalling ravages of typhoid fever in the epidemic of that disease at Palo Alto. Such conditions will arise from time to time unless the medical profession awakens to the fact that it has a duty to perform, yet unfulfilled, to the public; a duty so imperative, that, unless undertaken and carried out, it will not be able to free its skirts of the charge of being accessory to criminal negligence. As a result of personal investigation the writer of this paper accumulated evidence to show that such epidemics are possible and probable at any time in this city. Bacterial counts of specimens of milk collected by him showed an average of over 223,000 germs to the cubic centimeter. An inspection of some of these dairies made an explanation of this pollution only too clear. No attempt is made to clean cows or milkers. The stables visited were, with one exception, foul, dark and ill-smelling. No medical inspection of the workmen on the farms was observed. The water supply in some instances was unprotected from the drainage of barns, houses and privies. Imagine the possible result in the event of a single case of typhoid fever occurring on such a farm, and remember that there is no inspection of the health of these workmen; that

mild cases of typhoid can easily exist unrecognized, until the polluted milk has carried its deadly errand into our homes, and has rendered desolate our hearts—not because the dairyman has been a criminal, but because the medical profession has committed a sin of omission! The county medical societies have a duty to perform. Will they still remain inactive in the face of these preventable epidemics?

The tragedy of Cornell, due to a polluted water supply, followed so closely by a similar, though

**UNIVERSITY EPIDEMICS.** fortunately less deadly epidemic of typhoid fever at Stanford University, should attract immediate and careful study at the hands of students of preventive medicine. For long it has been known that where many men from all sections are gathered together—as in military camps—typhoid fever and other diseases are to be carefully looked for and guarded against, yet that similar precautions should be taken in connection with large gatherings at university centers, does not seem to have been recognized. Where so many lives are placed in danger it would seem as though no amount of care or expense should be too much to ask, that the health and the lives of these young men and women may be properly safeguarded.

The appointment of a Tuberculosis Committee by the State Medical Society at the Santa Barbara meeting was in keeping

**COMMITTEE ON TUBERCULOSIS.** with the general scientific work of the session. This showed

our State Society to be abreast with the times on this important subject. The tuberculosis question has always been of sufficient magnitude to demand the attention of medical societies; but never until recent times has its investigation seemed to promise any hope of relief. Today the world is astir. Public opinion is being educated to the fact that tuberculosis is a preventable and curable disease. Municipalities, states and nations are making the prevention of the spread of tuberculosis a matter of earnest consideration. That our State Medical Society did wisely in taking up this subject is patent from the fact that tuberculosis is very common in our midst. Not only have we a large proportion of native cases, but also a great army of imported cases who come here to receive the advantages of the far-famed climate which certain sections are reputed to possess. How to deal with tuberculosis in California is a subject in which every citizen of our State has a vital interest. It is the intention of this committee to investigate the subject as thoroughly as they can. They wish to obtain the number of cases of the disease in the State; to find out what proportion of these are native and what proportion im-

ported; what measures are being taken, either by private or by public initiative, to check its spread; also to find out whether or not the physicians are in favor of taking measures for checking the disease. We bespeak for the committee the earnest support of every physician of the State, that their report may be complete and valuable. This investigation entails a great deal of work upon the committee and their work can be very much facilitated by a prompt reply to the circular letter which they intend to send to the physicians of the State.

In at least one State the full value to the public and to the medical profession of thorough and careful organization is amply demonstrated. In Kentucky

**THE POWER OF ORGANIZATION.** every medical office in the State is filled through the medium of the State and county medical societies. No appointment to a State, county or municipal board of health, vaccinator, insurance examiner, etc., is made without consultation with and reference to the organized medical societies, and no man can receive such an appointment unless he is enrolled in the county society of the county in which he lives. Improper or unjust legislation can no longer even be introduced, for the tremendous strength of organized effort would at once strangle it. It is said, on the highest authority, that there is not a single advertising quack nor illegal practitioner in the State—a result due wholly to the complete organization of the profession and the persistent and insistent demands of the organization. A physician legally licensed to practice medicine in the State of Kentucky can have no recognized professional standing unless he be a member of his county and *ipso facto* his State society. It is quite time that this condition prevailed in every State, and we of California should see to it that no further delay occurs in furthering our complete organization and securing full control of all things medical within our State.

The spirit pervading the American Medical Association at the New Orleans meeting in May,

**REORGANIZATION OF PROFESSION.** was distinctly and pronouncedly a harmonious and very profound desire for organization and reorganization of the whole profession of the country. No one could have sat through the heat and the toil of the House of Delegates at this 54th annual meeting without being greatly impressed with this one underlying fact. The desire to end old wars and refrain from touching old and nearly healed wounds, was everywhere manifest and was most convincingly shown in the reports from 44 State Societies, showing a tremendous increase in membership. And it is right that this should

be, for the power for good of a united profession of medicine cannot be overestimated. Our own State Society has, within a year, quadrupled its membership; within the next year we should at least double our present membership.

For twenty-two years has been waged a foolish war among medical men, over the "Code of

**CODE OF ETHICS** Ethics" of the American Medical Association. Almost every year has seen

**NOW INOCUOUS.** some attempt to modify that monstrous document, but with little or no result. The profession in New York has been split into two factions for years, and envy, hatred and malice have been allowed to grow and flourish there, about the silly questions of "Code" or "No Code." The New Orleans meeting of the Association saw the death and burial of this old "Code," and the ceremonies attendant were joyous. The general committee which had the matter in charge presented a beautifully innocuous document "of a purely advisory nature," in which is set forth the "principles of medical ethics approved by the American Medical Association." Now let New York and every other State in the Union go ahead with the good work of organization until every reputable practitioner of medicine is a member of his local, State and national association.

Once more the JOURNAL appeals to each and every member of the State Society for proper aid and assistance. We want to

**REPORTS FROM COUNTY BODIES.** know and to publish the doings and the transactions of every County Medical Society

in the State. But the Publication Committee is not ubiquitous; it can not attend all County Society meetings, nor can the editor distribute himself about the State for that purpose, much as he should like to do so. It therefore becomes the plain duty for each member of the Society to help by either sending such news to the JOURNAL himself, or see to it that someone in his County Society does forward the news desired. In this connection, Secretaries of County Societies particularly, and members generally, are requested to send in notices of the marriage of any member, and also a brief biography with the notice of the death of a member.

A better way should be devised than suspension of members who neglect to pay dues. Several secretaries of County Societies complain that their lists of

**TROUBLE FOR DELINQUENTS.** members are growing less through this carelessness on the part of delinquents, for it stands to reason that societies cannot carry in full membership those who do not contribute toward the expenses. One

is apt to say that if people won't pay up they should get out; but the truth is that in almost every instance of delinquency it happens more through forgetfulness and procrastination than through any intention to shirk payment. Dropping from county societies carries with it dropping from the State Society and deprives the offender of the publications of the Society. If the JOURNAL is not being received regularly, or if you fail to get a copy of the Register when it comes out, it might be a good idea to have a little interview with the secretary of your County Society concerning your back dues. That matter being satisfactorily arranged, it will be found that the receipt of the Society's publications will be resumed with magical promptness.

The Santa Barbara meeting of the State Society was noteworthy for many reasons and in

**STATE SOCIETY ANNUAL MEETING.** many ways. It was the first meeting under the new plan, whereby all the business of the Society is transacted by a house of delegates composed of members duly elected by the affiliated county societies, and it demonstrated the wisdom of this plan beyond all question. Every county society was represented in the house of delegates, and as the vote of the house on almost every measure was practically, if not actually, unanimous, the fact is manifest that the measures adopted are approved, not by a group of men representing a small portion of the State, but by the physicians of every part of the State. The keen interest taken in the affairs of the Society by each and every delegate, is fairly strong evidence of the fact that the State Society is actually representative of the profession of the whole State, and that its interests are taken to heart by every County Society. No one need have the slightest anxiety as to the future of the State Society, now that it is in the actual control of the profession of the whole State.

An exceedingly gratifying feature of the last meeting of the State Society was the high tone of so very many of the

**STATE SOCIETY'S SCIENTIFIC WORK.** papers read and the ensuing discussions. Not with-

in the last ten years at least, have the discussions been so extensive or so general, and probably few if any members in attendance left Santa Barbara without feeling a certain amount of personal gain; without realizing that he had learned enough of other men's ideas or view-points to make the trip well worth his while. The removal of all questions of business or politics from the general meetings greatly helped this feature of the meeting and was certainly regarded as a blessed relief by very many. That the Society may be very large and still lose noth-

ing, but rather gain in its scientific value, seems to have been clearly demonstrated. Let us grow still more—let us double our present membership before next April, and then we may look forward to a still bigger attendance, to a yet more tranquil business session, and to an even superior scientific program. This may be done if each one will help all he can.

The State Board of Health recently passed resolutions recommending the removal of "Chinatown" from its present location in the heart of San Francisco. The Board asserts that the presence of "a

**ADVISE REMOVAL OF CHINATOWN.** large alien and unassimilable population is a constant menace to the health, commerce and industries, not only of the city itself, but also of the State and even the nation at large." Just how the removal is to be effected has not yet been announced, but doubtless some way will be suggested. In Honolulu the Chinese quarter became unsanitary and otherwise objectionable, and very heroic measures were taken to cleanse the disease-breeding locality. It was purified with fire. Probably the torch could not safely be employed in ridding San Francisco of its pest-hole, but until the dozen blocks are absolutely obliterated and the ground which is now saturated with filth, be given liberal treatment with chloride of lime and carbolic acid, the quarter will require close watching. Work of the right sort has been done and is being prosecuted by the Federal, State and City health officers acting in harmony, and Chinatown is just now cleaner than it ever was before. That is saying a great deal, but the disinfection must be continued, in fact be constant, in order to render the quarter safe.

#### THE REPORT OF THE A. M. A. COMMITTEE ON MEDICAL EDUCATION.

The JOURNAL has not had time as yet to consider even a moiety of the work done by the House of Delegates of the American Medical Association at the New Orleans meeting, but it wishes to begin this task at once and will therefore call attention to one committee report, that on medical education. It is to be noted in this connection that the address of President Billings was on the subject of medical education in the United States, and that it has also been the subject of papers by Vaughn of Ann Arbor, De Schweinitz of Washington, D. C., and Parsons of Albany (these three in the *Journal of the A. M. A.* for 25 April, 1903) so that it is plain that the subject is one prominently before the professional mind just at present, and it is not at all unlikely that the report of the committee here to be referred to mirrors the consensus of opinion of many men not on the committee. The report refers to the fact

that elevation of the standard of medical education was among the original objects of the American Medical Association, and was so stated in 1846. It calls attention to the fact that national legislation can never accomplish this, for it cannot infringe on the internal government of any State in the matter, and in these words it emphasizes the need, the obvious need, of the raising of the standard:

Medicine demands a better order of intellect and better preparation than is possessed by the poorer part of the men who are to-day entering its ranks in America. The other great world powers, our competitors in commerce, art and science, demand in their medical men as a minimum requirement a preliminary education equal to or more than our best high schools, and then five years of medical study. Such requirements are none too high, and we in this country cannot much longer afford to remain satisfied with anything in medicine short of the best.

A means of accomplishing the end is suggested; namely, the establishment of an educational prerequisite for admission to the American Medical Association, as it is above and includes all universities and medical schools, all examining boards and all State and County Societies. It is in this that the real point of the recommendation lies, and it shows very quickly the result of the unification of the profession. For if this report is adopted—it has up to the present only been accepted and ordered printed—it will be obligatory on each State Society to pass a similar resolution, and then each county will have to do the same, and it will come to pass that the standard set by the central organization will be that for the smallest integral part of it.

The recommendation is not too sweeping to be practical and easily put in force. It is merely that no man be eligible to the Association who has not had a high school education, or its equivalent, and has not studied medicine four years, and at least seven months each year. Moreover, this regulation is not to go into effect until 1908, so as to give time for all State and county societies to conform to it, and especially for all medical schools to set their courses in conformity with it.

There is one thing, however, which is obvious at the very beginning—the standard is too low so far as the preliminary education is concerned. It is not possible for a man to get out of a high school education all of the training necessary to enable him to successfully grasp the questions of medical science in their entirety. Medicine draws from practically every other science, and uses them all in the making of diagnoses or the prosecution of courses of treatment. A great deal more than the high school smattering is absolutely essential for the medical student, and the medical practitioner is going to need very much more than the student. But while this is true, it is still right for the Association not to demand too much at this time; it will be easier to screw

the matter up higher five or ten years hence than now.

There is another point to be noted. President Billings called attention to the fact that medical men are being produced to-day too rapidly. Taking one medical man to six hundred of the population as the present proportion, he showed that two thousand too many physicians are produced each year. This cannot be corrected as long as the proprietary school can flourish, with no standard of admission or graduation. But if the proprietary school has to enforce the same law of prerequisites as the university school its value in the eyes of the ill-prepared man is lost, and he will either meet the proposition by preparing himself for the university school or he will turn his energy to something not medicine. It is not unlikely that these latter will amount to a considerable number and that by this means the overplus of medical men may be reduced, and with this will inevitably come the passing of the proprietary school, which is run for revenue only, the kind of a school that takes \$150.00 in fees from a student each year and spends on his whole education less than one-fifth of that amount. Surely this is a much wished for consummation.

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#### THE CITY AND COUNTY HOSPITAL AND THE TRADES UNIONS.

The management of the City and County Hospital is a subject which has been often before the public. It has been presented in every possible way, from a lurid, and often silly, story of some minor event in what may be called and may be the *social* life of the institution, to a discussion of a change in a major office, written up from a partisan viewpoint. Not one of these disclosures of the methods of the governing power of the place has ever had the slightest effect; probably they were not expected to have any. The old abuses perpetuated themselves, the ancient manners still dominated, and the hospital went on as it had been in the way of going on.

Now, all this may be right or it may be wrong. If it is right the controlling power and the institution can easily stand the scrutiny of outsiders. Every question regarding ways and means can be clearly and satisfactorily answered. All appointments can be easily justified; nay, more, all appointments can be justified to the point of showing that there was not, inside or outside of California, a better appointment possible.

If it is not right, however; if a little, or more than a little, of improvement is possible—and if it is possible, it is at once an obligatory improvement—who are the people most interested? Who are the people most likely to be affected, for good or for bad, by the gain or loss of that improvement?

It cannot be the general body of the taxpayers. They do not go to the hospital; they never think of it except as they skip the articles which refer to it in the morning papers; it cannot be the corporations of the city which can be affected by the good or bad administration of the place, for it is just as true that these corporations are bodyless as it is that they are soulless. It cannot be the trades unions, nor the members of the trades unions, who may be interested in this matter. The union itself is, like the corporation, bodyless, and the member of the union is to-day easily above the need of assistance by the hospital.

It must be that there are some people who do not come under any of these classifications, some people who do not belong to unions; for the hospital is always full. These are the people most interested, and even vitally interested in the way the institution is run. These are the people whose lives depend on the proper administration of the place, and the term "proper administration" is intended here to include everything; everything from the selection of the butcher and the milkman to the cooking and distribution of the meat and milk, and also to the prompt and cleanly removal of all the uneaten and undrunk portions, so that no focus for saprophytic or infective process may be in the place. It includes not only the buying of drugs and dressings, but also the dispensing and disinfection, the administration and application, respectively, of these things.

Now these sub-union people, anomalous as they are in this era, must still have certain rights, simply because they are alive and are in the hospital. Inasmuch as they obviously have no organization they are powerless, for there is organization on the other side. Who will go to their aid? It is the inherent duty of the strong to protect the weak and the nearest strength is the strength that weakness must first turn to. The sub-union unfortunates must look first to the unions for help. They are the fortunates who have rescued themselves from the need of civic charity; they are the ones to appreciate the possible horrors of hospital maladministration; they are the particular ones who, in all human charity, should be swiftest to see the apparent evils, the quickest to perceive the inevitable result of an evil uncorrected, and the keenest to demand the entire reorganization of the administrative scheme so that the place shall be purged of moral and physical dirt, and made clean and sweet. If the union has ever been hungry, it should insist that the sub-union man be fed, and fed with good and wholesome food; meat that is properly cooked, milk that has no adventitious water. If the union has ever ached or been broken, it should be the more anxious that the sub-union brother shall, in his day of mischance, have a clean bed and a soothing draught. The JOURNAL is sure that if the unions will turn their attention to

this matter—not by sending a "walking delegate" nor a talking delegate, but by sending an intelligent and honest committee to look into and about the place, they will then demand of civic authorities more money and better administration, with the penalty of the loss of votes if the demands are not promptly and properly granted. Then a great change will come over the whole scene and so far from being the place of last resort in the darkest hour it may be the most obvious place of refuge in any time of disaster or illness. Then, oh unions, there will be those, outside your ranks who will rise up and call you blessed!

Now, this is a serious suggestion. The unions have entered politics. They have elected a Mayor and he has appointed other union men to city offices. In the doing of this the unions have put themselves in a position where they are open to criticism quite as much as does any man who enters the same field. The man must stand or fall according as his acts are good or bad. This has been shown so often in American politics that it needs no illustration. The unions are subject to the same inevitable law. If they reach out for what is the best, "the greatest good of the greatest number" they will stand more firmly day by day. If they are too short-sighted to see this, they will certainly fall, no matter what their numerical strength, for a time will come when opposition will arise, even in the union ranks. At present they are in the flood tide. Can they be wise?

The management of a hospital may seem a small matter compared with getting some offices or striving to control the business of employers; but there is no time when a man—union man or non-union man—wants care and assistance more than when he has to go to a public hospital, a place in which he is simply "a case." That man wants the hospital to which he has to go conducted on the lines of the broadest humanitarianism, and according to the most approved hospital methods. He is not then interested in the politics of the superintendent or nurse, but he is in their efficiency as hospital officers. He would much prefer that his personal enemy provided good milk rather than to have his friend getting fat on a contract by scamping that article; and the same is true of every phase of the matter.

It is plain, too, that the unions are near to the hospital; some of their members may not be thrifty enough to profit by the present flush times, or these times may not last and may be succeeded by days of little work and reduced pay. In those days the sub-union man may not be alone in the hospital. It is not enough that the unions employ a physician on contract to dose them. That work, cheaply paid for, is always done in much the same way, and besides, the physician's contract does not include the providing of food, light and fuel. When these are lacking, the hospital looms up.

It is an opportune time for the unions to think of this. They have power now, let them take up the matter of the City and County Hospital; let them take it up in a broad and understanding way, not in the conventional union way. Let them ask those of their membership who have been in the hospital how they fared; let them send one or two presidents of unions there to try the place practically. Out of these investigations and experiments should come a call, expressed in no uncertain terms, for a bettering in buildings, food and attendance. The exclusion of politics should be demanded and the most rigorous civil service methods should be installed and kept there. The unions should see first, that provision is made in the hospital for unfortunate union and sub-union men, as individual union men would like to make for themselves in their own homes. The unions can easily do all of this. Will they do it?

#### REGISTER OF PHYSICIANS.

Preliminary notices will soon be sent out concerning data for the forthcoming Register of Physicians. In order that the Register may contain the name of every physician in the State, it will be necessary for those receiving the information cards to fill them up carefully and return promptly. There is a vast amount of work to be done and it is the intention to have it done systematically and thoroughly; but much depends on individual interest on the part of the practitioners themselves. A reference book has most value in accuracy. If each doctor will see to it that his own record is furnished without error, then he may be certain that his name, address and dates of certificates will be given correctly.

#### RECIPROCITY.

Members of the State Society may contribute in certain ways toward the material support of the JOURNAL, and do so with perfect propriety. The JOURNAL is as much the property of one member as it is of another. There is no good reason why members of the Society should not exert themselves to upbuild their own publication. If you do not find the advertisements of firms with which you deal in the JOURNAL, probably the dealers would advertise in it if the matter be called to their attention. This is no begging proposition, by any means; the JOURNAL gives the best possible value in the way of circulation—and particularly in the character of its circulation. The State Society is not asking for contributions—only reciprocity.

#### DEATH.

Dr. Clinton Henry Lubbock died at his home in Alameda, May 21, 1903, after suffering paresis for several months. Dr. Lubbock was born in Texas in 1861. Took degrees from College Medicine State Missouri, and Med. Dept. University City, New York.

OFFICIAL MINUTES OF THE LEGISLATIVE BRANCH  
OF THE  
MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
AT ITS THIRTY-THIRD ANNUAL SESSION  
HELD AT  
POTTER HOTEL, SANTA BARBARA, APRIL 21-23, 1903.

**First Session, April 21, 1903.**

Meeting called to order by the president, Dr. F. B. Carpenter, at 8:25 p. m. Roll call of delegates, and absentees noted. President presented his report, which was referred to a special committee, appointed by President, consisting of Drs. J. H. Parkinson, E. Rixford, J. H. Barbat, D. A. Hodghead, R. F. Rooney.

The report of the Secretary was read and referred to the same committee.

Dr. Rixford moved that this committee also consider the advisability of adopting the Constitution and By-Laws for State Societies drafted by the American Medical Association, and report at the next session. Motion seconded and carried.

Report of the Board of Trustees was read by the chairman, Dr. C. G. Kenyon, and on motion also referred to the above committee.

A protest from a San Diego physician was introduced by Dr. D. A. Hodghead and referred to the Judicial Council.

The report of the Treasurer was received and placed on file.

**New Business.**

On motion Mr. Horsburgh of the Southern Pacific Company was requested to address the Legislative Branch regarding railroad rates to the next convention.

It was moved and seconded that the Secretary wire the proprietor of the Paso Robles Hotel regarding rates, which was carried.

A communication from Dr. Foster of Humboldt County was referred to the Judicial Council.

A communication from the Census Office at Washington was referred to the Committee on Medical Legislation and Education.

The report of the Committee on Publication was read and on motion referred to the special committee previously appointed.

Dr. E. Rixford of San Francisco proposed an amendment to the By-Laws which was read and posted in accordance with the provision in the By-Laws regarding amendments.

A communication from members-at-large was read and after considerable informal discussion the Chairman ruled that the delegates-at-large were properly accredited.

A bill from the Memorial Committee for \$4.35, typewriting and postage, was read and referred to the Auditing Committee.

A communication from the Secretary of State to the effect that the Medical Society of the State of California was incorporated November 10th, 1870, was read and ordered placed on file.

The report of the Auditing Committee was received.

Adjournment 10:30 p. m.

GEORGE H. EVANS, Secretary.

**Second Session, April 22, 1903.**

Meeting called to order by the President, 8:30 p.m.

The first business taken up was the matter of the selection of a place for the next annual convention.

A communication was received from J. A. Horsburgh, Assistant General Passenger Agent of the Southern Pacific Company regarding special rates to and from Paso Robles.

A communication was also read from W. A. Junker, proprietor of the Paso Robles hotel, regarding terms.

Moved by Dr. J. H. Parkinson, seconded by Dr. H. G. Thomas that Paso Robles be selected as the next meeting place. Dr. J. L. Asay placed San Jose in nomination for the next convention. Dr. B. F. Church placed Los Angeles in nomination. On vote of the delegates, Paso Robles was selected.

**Election of Officers.**

President—Dr. H. Bert Ellis, Los Angeles, nominated by Dr. W. W. Kerr, seconded by Drs. Wills and Sherman.

Vice-President, Dr. W. H. Flint, Santa Barbara, nominated by Dr. J. H. Barbat, seconded by Dr. W. W. Kerr.

Second Vice-President, Dr. G. A. Hare, Fresno, nominated by Dr. Wm. LeMoyn Wills, seconded by Dr. Harry M. Sherman.

Secretary, Dr. George H. Evans, San Francisco, nominated by Dr. H. G. Brainerd, seconded by Dr. J. Henry Barbat.

First Assistant Secretary, Dr. H. P. Hill, San Francisco, nominated by Dr. W. W. Kerr, seconded by Dr. H. M. Sherman and Dr. L. W. Allen.

Second Assistant Secretary, Dr. Z. T. Malaby, San Francisco, nominated by Dr. W. I. Terry, seconded by Dr. W. L. Wills.

Treasurer, Dr. E. E. Kelly, San Francisco, nominated by Dr. J. H. Barbat, seconded by Dr. H. G. Brainerd.

There being only one nominee for each of these offices, the Secretary was ordered to cast the ballot, which was done individually, and the above-named duly elected to the several offices for the next year.

Board of Examiners: Drs. Dudley Tait, F. M. Pottenger, D. E. Osborne, W. S. Thorne, S. H. Buteau, were placed in nomination by Dr. J. H. Barbat. Dr. L. H. Thorpe was placed in nomination by Dr. W. L. Wills. Dr. J. H. Parkinson and Dr. D. A. Hodghead protested against the nomination of Dr. Dudley Tait. Dr. J. H. Barbat withdrew the name of Dr. F. M. Pottenger. After considerable informal discussion, during which several points of order were raised, it was moved by Dr. J. H. Parkinson that the names as nominated be voted on as a whole. A protest being entered by Dr. D. A. Hodghead, Dr. J. H. Barbat moved that ballot be taken individually, which motion was seconded and carried. The results of the ballots were as follows:

Dudley Tait, 26 affirmative, 4 negative; D. E. Osborne, 29 affirmative, 1 negative; W. S. Thorne, 29 affirmative, 1 negative; S. H. Buteau, 30 affirmative; L. H. Thorpe, 29 affirmative, 1 negative.

Alternates to the Board of Examiners: Dr. Clark Burnham of San Francisco, nominated by Dr. W. I. Terry; Dr. A. W. Kirk, of San Francisco, nominated

by Dr. J. H. Parkinson; Dr. F. M. Pottenger of Los Angeles, nominated by Dr. H. M. Sherman.

There being no opposition, the Secretary cast the ballot and the above named were duly elected alternates.

Board of Trustees: Dr. J. H. Barbat placed in nomination the following: Drs. C. G. Kenyon, C. W. Nutting, Thos. Ross, F. L. Adams, P. M. Jones, A. W. Morton, G. A. Hare, W. S. Fowler, J. Rosenstirn, F. C. E. Mattison, Walter Lindley.

Dr. J. C. King nominated Dr. J. G. Baird of Riverside; Dr. W. I. Terry nominated G. F. Reinhardt of Oakland; Dr. Barbat withdrew the names of Drs. Lindley and Fowler, and on vote of the delegates, the following were elected to serve for the ensuing year:

Drs. C. G. Kenyon, San Francisco; C. W. Nutting, Etna Mills; Thos. Ross, Sacramento; F. L. Adams, Oakland; P. M. Jones, San Francisco; A. W. Morton, San Francisco; G. A. Hare, Fresno; J. Rosenstirn, San Francisco; F. C. E. Mattison, Pasadena and J. G. Baird, Riverside.

Delegates to the A. M. A.: Dr. J. H. Barbat placed in nomination Drs. C. G. Kenyon and P. M. Jones who, on vote of the House of Delegates, were elected as representatives to the national body.

Drs. C. D. Ball of Oakland, F. L. Adams of Alameda and H. G. Brainerd of Los Angeles were nominated and elected as alternate representatives to the A. M. A.

The Board of Trustees, through its chairman, Dr. C. G. Kenyon, made the following report on the matter referred to it at the previous session:

"In the matter of the protest to the affiliation of the San Diego County Medical Society, referred to the Judicial Council, we have to report that after carefully considering a protest referred to your council by certain practitioners of San Diego County, and after hearing both a representative of the protestants and of the Society, the following resolution was introduced and passed unanimously:

*"Resolved:* (1) That the Judicial Council notify the protestants that the San Diego County Medical Society is affiliated with the Medical Society of the State of California.

(2) That the Council recommends that the San Diego County Medical Society so amend its Constitution and By-Laws as to eliminate all reference to contract or lodge work.

(3) That the Council earnestly recommend that further efforts be made by the San Diego County Medical Society to harmonize the personal differences and difficulties of the physicians of San Diego County, and endeavor to obtain eventually a united and harmonized whole."

A motion that the report be received was carried. A motion to adopt the report was amended by Dr. W. W. Kerr to the effect that the report be adopted with the elimination of the clause relating to lodge and contract practice. The amendment was carried.

The report of the special committee was read by the chairman, Dr. J. H. Parkinson, who recommended that the report be read and adopted section by section.

SECTION 1. Committee recommends that the President may, at his discretion, invite eminent scientists, not members of the profession, to address the Society at its annual meetings. (Adopted.)

SECTION 2. Committee recommends that, hereafter, the Society shall refuse to accept a banquet or other entertainment, involving considerable outlay, from the local profession at the place of annual meeting. It further recommends that the Committee of Arrangements be authorized, at its discretion, to provide such entertainment through voluntary subscriptions from members desiring same, but without cost to the Society as an organization. (Adopted.)

SECTION 3. Committee recommends that the salary of the Secretary be increased from two hundred dollars (\$200.00) to four hundred dollars (\$400.00) per annum and for this purpose recommends an amendment to Article XII, Section 2, By-Laws, by changing first two lines to read: "The annual salary of the Secretary shall not exceed four hundred dollars (\$400.00)." (Adopted.)

SECTION 4. Committee recommends that the delegates be reapportioned as follows: One delegate for every twenty-five members or major fraction thereof, and for this purpose recommends an amendment to Article IV, Section 2, By-Laws, as follows:

Article IV, Section 2, line 1. "Each county medical society entitled to representation shall have the privilege of sending to the State Society one delegate for every twenty-five of its members and one for every additional major fraction of that number; but each affiliated society having less than twenty-five members shall be entitled to one delegate." (Adopted.)

SECTION 5. Your committee has been unable to find any provision for the election of alternates. It therefore recommends an amendment to Article IV, Section 2, By-Laws by adding after the word "delegate," line 6: "Alternates shall be elected at the same time and in the same manner." (Adopted.)

SECTION 6. Committee recommends that there shall be added to the duties of the Board of Trustees the organization of the profession by the formation of societies where none exist and the reviving of those already organized, but inactive. Part of this duty would be the formation of societies in certain sections embracing two or more counties, so as to insure uniform representation in the Legislative Branch. The committee believes that much of this work may be accomplished by Trustees working in their respective districts, but should this be found insufficient, the Board can report its experience and recommendations at the next annual meeting. To make this recommendation effective the following amendment to Article III, Section 6, By-Laws, is offered: By adding after the word "transactions," on line 22, "Each Trustee, other than those elected at large, shall, in his Congressional district, proceed to organize the profession so that every county or association of counties be represented by a medical society." (Adopted.)

SECTION 7. The committee, by a majority vote (two members not voting), recommends that the publication of the transactions, in journal form, be continued for another year, and that such publication be placed in the hands of the Board of Trustees, which shall delegate to the Committee on Publication such authority as it deems proper. The committee further, and unanimously, recommends that all editorial matter shall be limited strictly to the discussion of scientific subjects and that no editorial dealing with controversial matters, or that can in any way be construed as personal or partisan, shall appear in the transactions. The committee feels that the question can be covered in this manner, and therefore does not offer an amendment to the section. Article III, Section 6, By-Laws. (Adopted.)

SECTION 8. Committee recommends that the Board of Trustees be authorized to publish annually a medical directory of physicians throughout the State, and that a copy shall be furnished free to every member of the Society, the remainder of the issue being sold in such manner as the Trustees may direct for the benefit of the publication. (Adopted.)

SECTION 9. Committee recommends that the Secretary be authorized to purchase a filing cabinet at an expense not to exceed fifty dollars (\$50.00). (Adopted.)

SECTION 10. Whereas the permanent members of this Society are not eligible for election as delegates to the American Medical Association, the committee recommends that a special committee of three be appointed by the incoming President to confer with these members and endeavor to induce them to affiliate with a local society, where one exists, and to make such suggestions as will best meet the difficulty, reporting at the next annual meeting. (Adopted.)

SECTION 11. Committee recommends that the Secretary communicate with the secretaries of the local societies, enclosing a list of delinquents in each society, a statement of the facts and a request that the local secretary collect and remit. (Adopted.)

SECTION 12. The committee finds that the provisions in the Constitution relating to members-at-large create a defect in the general scheme of medical organization. The committee believes that the provisions should be abolished and that this class of membership should not be carried on the roll of the Society. There appears, however, to be a legal question involved as to the effect of the requirement of an added condition, to wit, the joining of the affiliated local society. The committee therefore recommends that this matter be referred to the Board of Trustees, with instructions to procure a legal opinion upon the point and to report at the next annual meeting. Meanwhile it is suggested that the matter of affiliation be referred to the committee mentioned in paragraph 10, to the end that by the next annual meeting members-at-large, as such, shall have ceased to exist. (Adopted.)

SECTION 13. The committee finds that many defects have developed in the present Constitution and that certain contingencies have not been provided for; with a view to curing these defects a draft Constitution and By-Laws is herewith submitted. This document is, in effect, the Constitution for State Societies offered by the American Medical Association and modified to suit local conditions. The committee recommends that this draft, together with the present Constitution, be placed in the hands of a special committee of five, to be appointed by the incoming President, for the purpose of thoroughly studying the subject and presenting the whole matter to the Society at its next annual meeting. (Adopted.)

Signed, James H. Parkinson, Chairman; D. A. Hodgehead, J. Henry Barbat, R. F. Rooney, E. Rixford, Secretary.

Dr. J. H. Parkinson moved the adoption of the report as a whole, which motion was seconded and carried.

Dr. H. M. Sherman moved that the Secretary give the incoming President a list of the delinquents; motion seconded and carried.

Dr. H. M. Sherman presented the following resolution regarding a nominee for a president of the State Board of Health:

"Whereas there now exists by the death of the late Dr. M. Gardner, a member of this Society, a vacancy in the State Board of Health,

*Resolved:* That the Medical Society of the State of California recommends to the Governor the name of Dr. John M. Williamson, of San Francisco, a member of this Society, as a nominee for the appointment."

Which resolution was adopted.

Dr. M. W. Fredrick presented the following resolution:

"Resolved: That out of the funds contributed by, and belonging to the members of the Medical Society of the State of California, the Trustees are authorized to appropriate such an amount as is necessary to secure the subscription of each member to the California State Journal of Medicine."

Which resolution was adopted.

Dr. J. H. Barbat moved that \$43.00 be paid to the President for expenses incurred by himself and the Secretary in the interests of Medical Legislation. Motion seconded and carried.

The bill from the Memorial Committee, which was endorsed by the Auditing Committee was ordered paid.

Adjournment 11:50 p. m.

GEORGE H. EVANS,  
Secretary.

(The official minutes of the Scientific Branch will be printed in the July JOURNAL.)

## REPORT ON MEDICAL LEGISLATION AND EDUCATION\*.

By HENRY GIBBONS, JR. A. M., M. D.

Some record should be kept of Legislative proceedings relating to medicine, therefore the following report is presented:

Three bills proposing modification of the existing law regulating the practice of medicine in the State of California were introduced at the recent session of the Legislature. Assembly Bill 486 was withdrawn from the file before action was taken upon it, Assembly Bill 129 was not reported upon by the Judiciary Committee to whom it was referred, and Senate Bill 365 did not succeed in passing the Senate. None of these bills, therefore, became laws and the medical law remains as now found on the statute books, and in the last published register of physicians.

The primary aim of all these bills seemed to be to transfer the power of appointment of the members of the Board of Examiners from the societies to the Governor. In fact this was the only change proposed in Senate Bill 365, except that excess of money above expenses received by the Board were to be paid into the State treasury instead of into the treasuries of the State societies.

In Assembly Bill 486 the Governor was empowered to appoint the nine members of the Board, in equal numbers from the three State medical societies, which were authorized to submit lists of names to him from which to select. This bill made it the duty of the Board of Examiners to investigate all medical colleges in the State to determine if they are teaching according to the provisions of their announcements, and empowering said board to require such colleges to keep up to their standards and the standards of the national societies.

The bill also provided that if a physician should be arrested for practising without a certificate he should be released from penalty on exhibiting a diploma, filing application for certificate and paying the fee of \$20.00.

Assembly Bill 129 was more radical. It provided for the appointment by the Governor of seven bona fide residents of the State and grad-

uates of legally chartered medical colleges, not more than two of whom should at any one time be members of any one chartered State medical and surgical society. Candidates for membership on the board were to be suggested by the State societies. Section 3 provided that the board, immediately on organizing should require all persons practising medicine or surgery, to register. Those possessing satisfactory evidence of graduation and paying a fee of \$10.00 were to receive certificates, and all others upon paying a fee of \$25.00 were to be admitted to examination, and if found qualified, granted a certificate. The bill further provided that on and after September 2, 1903, all applicants for registration should be subjected to examination. A later section (11) provided that those already holding certificates should be entitled to practice medicine and surgery as before under such certificates. The intent of this bill is obvious. It was to make a loophole for some one without credentials to secure a legal right to practice medicine. I hold it to be fortunate for the medical profession and the public that none of these bills were passed. Frequent changes in existing laws are productive of uncertainty, annoyance and irregularity. It is better to suffer some little inconvenience than to fly to ills we know not of. But aside from the evils of mere change there is intrinsic objection to the bills.

One opened the way to the admission of ungraduated men to practice, two gave equal representation in the Board of Examiners to the three State Societies, and all three gave the appointing power of the examiners to the Governor, when it should undoubtedly remain with the societies. I congratulate this Society upon retaining its power to appoint the larger number of examiners. It is to be hoped that we have done, for some years at least, with attempts to modify the present law. I may add that these results are probably due in large part to the interest and attention of your president, Dr. Carpenter.

The matter of the preliminary education of those intending to enter upon the study of medicine is awakening much interest in various directions, and may well deserve the attention of this society. The high school training is a great advance upon the requirement of a few years ago. The degree in science exacted by Johns Hopkins is probably a higher standard than can ever be expected of the vast majority of medical colleges. While it appears that something more than a high school training is desirable and is even requisite for the best preparation for the study of medicine, it is equally true that eight years from the high school to the doctorate is excessive and apparently unnecessary. When a year of hospital experience is added there is still a greater accentuation of this point. At a time when Stanford, Yale and

other universities have felt the importance of permitting a wider latitude in electives, it is especially pertinent to inquire if something cannot be done to relieve the situation in the direction of medicine. The years required to secure the two degrees is a serious obstacle to a vast number of deserving and capable men. To very many it is positively inhibitory. How many of those now in attendance upon this session of our Society would have been physicians had they, when considering the study of medicine, found before them three years of high school, four years of university, and four years of medical college? Aside from this objection it is a matter for question whether the long period of training is not calculated to bind and trammel rather than to favor that independence of thought and action so characteristic of our countrymen. Whether, in other words, it has not a tendency to make followers, rather than leaders and practical men. It is not well to keep children too long in leading strings. And there is another side. The termination of this long period of preparation finds the student not less than twenty-six or twenty-seven years of age—often considerably more—and only just ready to enter upon that trying period of waiting for a practice which may not become remunerative for years.

Since the sciences which are at the foundation of medicine are now so widely and generously taught in the leading universities it has appeared to me eminently just to the student and to the profession that a student graduating in such department of a university should be given advanced standing to the second year in a medical college. If objection be made to this plan, surely none can be made to it if the universities provide a special course leading to medicine, and including in its curriculum such subjects as comparative anatomy, biology, embryology, botany, chemistry, histology, physics, hygiene, Latin and German, and perhaps physiology. It appears to me that the student should be justly entitled to the two degrees after the seven years' course thus outlined.

Indeed, looking at it from the physician's standpoint I am not sure that three years in a specially provided university scientific course followed by three years in a medical college might not justly entitle to the two degrees. This would unquestionably equal at least five years' study in a medical college. I am even inclined to go a step further and to consider whether two years in a special scientific course in a university might not admit to the second year in a medical college without, however, leading to the scientific degree. But the two years should be taken in a university providing and well prepared to provide the special course already outlined. Surely such a course could be more than equal to any year in a medical college, and be deficient only in the

practical anatomy of the soft parts, which could readily be made up later. As I said in the beginning this is a question well worthy the attention of the profession, and I trust it may receive such attention at the hands of this Society..

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#### REPORT OF MEDICAL EDUCATION AND THE WORK OF THE BOARD OF MEDICAL EXAMINERS.\*

By W. S. THORNE, A. M., M. D.

*Mr. President and Gentlemen* :—It is meet that we, your authorized and accredited servants, should render at this time an account of our stewardship. It therefore becomes our duty and pleasure to present to you a brief history of our work, together with such suggestions and recommendations as have occurred to us during our term of office. Upon the threshold of this enquiry permit me to assure you that the conscientious and efficient discharge of the duties of the Board of Medical Examiners is attended by many perplexities and harassing responsibilities. To comprehend the situation we should remember that the Board of Medical Examiners is putting into effect a new law that has elicited wide-spread interest and much antagonism. It is inaugurating a new system. It is aiming to establish a uniform standard of medical education. It suggests the necessity for higher ideals and more thorough training in scientific methods. It is also educating the laity to favor and to demand a higher standard of medical efficiency. Hence, its functions are to some extent judicial, diplomatic and educational. Harsh criticism, adverse opinions and open rebellion to the law have been met with becoming discretion and firmness. Society is so constituted that when once it has settled down to an established order of things, it regards with suspicion and jealousy changes or interruptions. Especially is this true of those laws that relate to personal action—the right to do as one pleases—to pursue untrammeled a certain profession, trade or method of obtaining a livelihood. The obnoxious character of such laws is well exemplified in the game law and the income tax. The recent law relating to the practice of medicine may be regarded as a conspicuous example of such statutes. It has been the settled policy of the Board to conduct the examinations with the utmost fairness. Theoretical inquiry has been carried only so far as to satisfy the examiner of a moderate acquaintance with medical literature on the part of the applicant. Catch questions, abtruse theories and speculative matters have been rigidly excluded from our lists. The practical methods of performing surgical, obstetrical and gynecological operations according to modern methods of asepsis have received our especial attention. We have

invited discussion in the written answers to questions in order to elicit the reasoning faculties and to give a more comprehensive and satisfactory test of the applicant's knowledge. It has been the constant policy and practice of the Board to make the examinations as practical as is consistent with the high grade of the examinations, the subjects treated and the scientific standard to be conserved. If matters yet unsettled in the professional mind have been touched upon, the personal opinions of the applicant, however expressed, have been placed to his credit. The attitude of the Board to the applicants has been characterized by the keenest sense of professional honor and fairness. A procrustean standard might well be established for a homogeneous group, but be it remembered that in a State examination the questions in all fairness should be framed with the view to test the qualifications of those fresh from college, as well as the trained practitioner who graduated decades ago, and whose knowledge is largely practical. It may be said that it is enough to set a high standard of scientific attainment and let all reach it who can, irrespective of the variable standards required by the countless schools prior to the enactment of the present law. Such a view of the duties of a board of medical examiners at this juncture would be, in my opinion, unjust, narrow and im-policitic in the extreme. A more liberal construction of its duties within the purview of the law must be recognized and maintained. The trained and duly licensed practitioner, whose skill and usefulness is attested by entire communities, should not be deprived of his well-earned honors or the fruits of his life work by a trick of the pen or a misconception of the law. We have, therefore, in our official capacity, deemed it expedient to exercise a wise discretion in dealing with those practitioners whose age, experience and practical knowledge recommended them to our consideration. In every and in all cases the hopelessly ignorant and flagrantly illiterate have been rejected. The discouraging effect upon commercialism in medical education by the institution of State examinations cannot be over-estimated. The enormous increase of medical colleges of low standard throughout the country has effectually thwarted the efforts of a conscientious minority to advance the profession to higher attainments in medical knowledge. The great body of medical men were gauged by the average of the majority of its members. Only a small percentage of American colleges were recognized abroad as of respectable standing. Diplomas issued by the larger number of colleges were not accepted as evidence of any medical or scientific attainment. Even in the Spanish Americas, American degrees did not entitle the holders to practice medicine. Hence it came to pass that each year beheld an increasing exodus

\*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

of students to Europe to obtain foreign qualifications. The significance of these facts was not lost upon the American people. In every community the holders of foreign degrees, or those who had even studied abroad, took rank and precedence. Diploma mills were springing up on every hand with no educational qualification for admission or any definite standard of attainment. The M. D. degree represented anything from that ignorance of medicine born of illiteracy to scholarship in both general and medical education. In a pedagogic sense there was no medical curriculum. The first step looking to reform in medical education was taken by the "Association of American Medical Colleges," requiring a four years' course. This event marked the upheaval of public opinion against the abuses of medical education, rather than actual reform. Medical colleges could not be remodeled, and the laws varied from one another in almost every State. Vastly differing standards of preliminary education and medical attainment characterized the various schools, even in the same State.

On the first of August, 1901, the act for the regulation of the practice of medicine and surgery in the State of California and for the appointment of a board of medical examiners went into effect. Similar laws had been enacted by the various States, and the wisdom and beneficial results of such enactments are attested by a majority of the people. In every State, however, these laws have been attacked as discriminatory, unjust and unconstitutional by those interested in commercial and illegitimate medical enterprises. When defeat of the law was found impossible, it was sought to favorably modify or nullify its provisions. In every instance, so far as I am informed, the law has been sustained. In this state a like antagonism from similar sources has been aroused. The parties to this onslaught are chiefly the commercial educator, the semi-respectable incompetent, gentlemen with diplomas and shady reputations, gentlemen without the shadow of either, the mendacious and criminal. These interests have united in secret compact to overthrow the law. It is sought to convert the Board into a political machine and subvert its purpose by the machinations of unscrupulous tricksters. Hucksters of medical diplomas, rejected incompetents, pretenders without qualifications, spurious professors with foreign degrees, and colleges requiring no educational test of matriculants, have formed an unholy alliance to defeat the law. The reason is too obvious to require explanation. A board of examiners, selected by the various State societies with reference to personal qualification, sustained by all reputable colleges striving for higher standards and approved by the great body of medical men everywhere, is the ideal bulwark of legitimate medicine. Its

operation under the law is the death knell to the enemies of medical progress. Its inquiries expose the detestable methods of medical commercialism, and State examinations will eventually reform or annihilate those who prostitute medical education for lucre and personal aggrandizement. In the glare of the twentieth century, in the light of the brilliant discoveries and unparalleled progress of medical and kindred sciences, who would oppose this onward march? Who are they who would degrade or asperse the lofty ideals of a profession aspiring to discover the secrets of life, the causes of death, and which seeks to regenerate the world by the gospel of health?

A recent author has well said, "It seems strange, yes, more than strange, that that science which underlies the most important principles, indissolubly associated with man's highest achievements, whether relating to social, commercial or family affiliations, has until the present been permitted by both the profession and the laity to be subjected to the basest abuses of unprincipled commercialism, diseased by absurd 'pathies' and 'isms,' the outgrowth of culpable ignorance and morbid emotionalism, its progressive growth and development seriously retarded by perverted religious fervor and degraded political power, and law prostituted to the low level of affording protection to medical fraud and crime."

The reciprocity of State boards should elicit the earnest and careful consideration of future examining boards. At the present time sixteen States only have provided for reciprocal relations, which number includes California. Dr. Harrison, secretary of the Michigan State Board of Registration and secretary of the American Confederation of Reciprocating, Examining and Licensing Medical Boards, has justly declared that within the past few years, a great many of the States which either had no medical legislation, or a very insufficient medical act, have obtained from their legislatures a more or less effective medical act, and in addition to the prevention of the registration and practice within their borders of incompetents, it has also necessarily, but without purpose, raised a barrier against the holders of reputable and standard qualifications registering and practising in other States, who for one reason or another desire to change their State location, and who, before such legislation was effected, could comply with the laws relative to medical practice. In other words, while the legislation in a number of the States has cut off and given the quietus to a very large and ever increasing supply of incompetent and fraudulent practitioners, it has also cut off to a large, if perhaps to a lesser extent, the supply of experienced and properly qualified practitioners from without States. Therefore the trend of medical legislation has been more favorable to

the recent graduate than to the older and properly qualified practitioner. Any reciprocal legislation which provides for the present and future practitioner, and ignores the older and experienced practitioner, for the reason that he has not obtained his certificate of registration through a State board of examination, is not only incompetent and unjust, but is also unconstitutional legislation. How then are those physicians who have been in practice several years, but who graduated from reputable medical colleges previous to the advance of such colleges to a higher standard, to be provided for? The Confederation of Examining and Licensing Boards, which at the present time includes in membership Indiana, Wisconsin, Illinois and Michigan, have formulated a qualification that covers the requirement. It declares, "That a license or certificate of qualification, issued by a State board of registration or medical examiners of at least one year's date, based upon presentation of a satisfactory diploma and the recommendation of a State board of registration or medical examiners as to the reputability of the applicant, may be accepted at the discretion of a board in lieu of an examination, and as a basis upon which the license of a State may be issued." It will be noted that this is simply the declaration of a policy, leaving it to the discretion of individual boards to adopt a standard of preliminary and medical education.

It is of paramount importance that State boards should unite upon a minimum standard of preliminary and medical education and enter upon reciprocal relations, based upon such standards. Such an affiliation means the raising of the standard of all the colleges in every State affected by the union, and only the recognition of colleges of the highest grade. The evidence is overwhelming that the great mass of the medical profession in this country has determined upon higher standards of medical education.

The M. D. degree—the diploma—means anything, from illiteracy to the highest qualification in medical science. The condition is chaotic—lamentable. Commercialism in its most objectionable forms has seized upon medical education as an avenue to wealth. In every State in the Union medical colleges, good, bad and indifferent, multiplied indefinitely. There was no recognized standard of education for admission to these institutions, and no uniformity of qualification for graduation from them. Education in its broadest sense did not exist. For obvious reasons medical colleges could not be remodeled, and successful reform must be directed against the incompetent yet technical doctor. How was this to be accomplished? By the formation, under State laws, of independent examining boards for all graduates. Happily for the welfare of society and the honor of science, medical opinion aided

by an enlightened understanding on the part of the people has established this needed reform in a large number of the States and territories. There may be much to learn in the practical operation of examining boards. Changes may be required, inadequacies may arise, but the object of this great movement on the part of the best men in the profession everywhere will be more or less perfectly accomplished—"to compel the colleges to so modify the scope of study, methods of teaching and practical training as to enable candidates for license to pass State examinations, which will in reality be examinations that actually demonstrate an adequate knowledge and comprehension of the principles of medical science, and the possession of a sufficiently cultivated skill in its art to merit the legal instrument that declares them so to be."

My brief experience as a member of a board of medical examiners leads me to suggest that, taking into account the present inadequate system of medical education, examinations should be limited, as far as practicable, to their applied phases. For example, in physiology and pathology, we should not seek for a scientific mastery in these branches, but rather their limited and practical application to medical and surgical practice. All impracticable and abstract matter should be strictly eliminated. I furthermore suggest that examinations in chemistry should be only so far as that science is applicable to medicine. As I understand it, the great object sought to be accomplished by State examining boards is to maintain a fair but elevated scale of scientific and practical attainment; to establish a harmonious relation and understanding of standards between the teaching and examining branches of education, as to the applied phases of fundamentals and the joint recognition of a curriculum.

In connection with the subject of reciprocity between the States, it may be proper to report that this subject has to be considered in its relation not only to State law, but also with the respective boards; and that up to the present time New Jersey, New York, Pennsylvania, Delaware and the District of Columbia are the only States whose legal requirements are equal to those of California.

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**The Revised Pharmacopeia**—Neither can a pharmacopeia be expected to contain all of the new remedies which are exploited by the various manufacturing firms throughout the world. This ever-changing, never-to-be-suppressed condition imposes on the revision committee a most difficult task of selection. It can only recognize the newer remedies which have stood the test of sufficient time to demonstrate their value, and of late years the *embarras de richesses* has been so pronounced, and one good new remedy has been so rapidly supplanted by something better (if the advertisements of the manufacturers are credited) that the task of the committee has been greatly increased.—Dr. Redington, Chairman, in *Journal of the A. M. A.*

PROSTATIC OBSTRUCTIONS AND THEIR  
REMOVAL.\*

By GRANVILLE MACGOWAN, M. D.

Professor of Diseases of Skin and Genito-Urinary Organs, College of  
Medicine, University of Southern California.

ORATION ON SURGERY.

*To the President and Members,  
Medical Society, State of California:—*

GENTLEMEN:—When I was asked by our President to write for you an Oration on Surgery, I was rather puzzled to know the character of the address I should make. In response to an inquiry he told me I was at liberty to write upon anything I cared to. I decided to bring before you the advancements along a line of surgery which is to most physicians strange, almost unheard of, and certainly not believed in; by many surgeons looked upon with curious doubt and disbelief; by a few regarded with favor, but not actively pursued; by some enthusiastically recommended without judgment and without conscience; and by a few practised with care, with an endeavor to obtain experience valuable in developing rules of precision for the work of those who may follow them, or for those who have not the means of procuring considerable experience for themselves. I refer to the radical surgery which reopens the vesical outlet closed by encroachment, in whole or in part, of the chronically inflamed prostate gland upon the urethra, which naturally-passes through it as a tunnel through a hill. This subject has been close to my heart since 1892, and much of my time has been occupied in its practical development. I could not believe the old-fashioned assertion, "Once a prostatic, always a prostatic." I had no faith in the dictum of the master, Guyon, that all cases of senile prostatic obstruction were sclerotic. I believed that successful methods could be developed for the relief and cure of such sufferers, and there were many other practical surgeons in this wide world, but principally in America, who thought as I did. We have gone on quietly developing this belief and showing our faith by our works, until now, to-day, to you I feel that I may state positively and absolutely, speaking only from the experience of my own operations, which have now numbered close to one hundred, that no man who is prostatic, unless his prostatism is due to cancer, need feel that he has a disease of which he may not be rid, with much less risk to his life than he takes if he refuses the assistance offered to him by the surgeon. Many of these cases can be entirely cured. The tonicity of bladders which have been atonic for years, scarcely possessing enough motor power to force the urine slowly but reluctantly through a catheter to fall without curve at the feet of the individual, have the contractile power of the detrusor so restored in a

few weeks, after the removal of the obstruction, that a good sized stream of urine will be projected in a forceful arc a considerable distance from the body. The crippled kidneys, with dilated ureters, pelvis and calyces and obstructed and choked urinary tubules, oftentimes the seat of abscesses; secreting too little or too much urine, which always contains albumen in varying amounts and casts, usually pus, and sometimes blood, and always, whether the urine be increased or diminished, secrete a quantity or urea greatly below normal; which perhaps for years have been unable to take care of the poisonous excreta, the separation of which from the blood is their duty, will, when the prostatic obstruction is removed, in a short time begin to functionate properly. The blood, pus and casts disappear; the albumen lessens and often is lost entirely, and the quantity of urea increases. The slow moving and doubtful mind becomes alert, the lagging step quickens, the nauseated and rebellious stomach changes to an eager receptacle for food, the ashy cheek turns pink again, and frequently sexual power held in abeyance for years, almost forgotten, reasserts itself and is restored.

This is not a fancy picture which I have drawn, but one which may be shown to you any day, if you are of an inquiring mind, in any city of considerable size and importance in America.

With the achievements of the past ten years in the surgery of the urinary organs before us, it is very interesting to read the works of those distinguished Englishmen, John Hunter and his student and successor, Everard Home, whose labors and conclusions dominated surgical methods in the treatment of these diseases for nearly a century.

Hunter, speaking of the treatment of the swelled prostate gland, Edition March 30, 1796. Page 174:

The methods practised in the above cases afforded only temporary relief, but must be had recourse to, to avoid the consequences of retaining the urine too long. As a temporary relief from pain, as also to remove spasm, opiate clysters should be thrown up once or twice a day. A certain cure, I am afraid, is not yet known. In one case in which I was consulted, a surgeon had found burnt sponge reduce the swelling of the gland very considerably. This disease, like stricture, produces complaints in the bladder. I have recommended sea bathing and in some cases received considerable advantage from it, and in two cases a cure of some standing.

Home, in his position as successor to John Hunter, and as curator of the Hunter Museum, had unusual opportunities for study of disease of the prostate. This subject happened to possess great attraction for him and its study gave him great satisfaction. To his imperfect investigations and immense influence we owe the false idea that this gland is lobular, consisting of two lateral and one middle lobe. This great surgeon very narrowly escaped finding the true solution

of prostatism. On page 23, Vol. 2, "On the Disease of the Prostate Gland," he says:

The lateral lobes when cut into were found to be made up of nodules like that in the middle lobe. *They were so loosely connected with one another that they might have been separated by dissection.* Their internal structure was in all the same, and like that already described. The projections seen externally were small portions of the outer surface of these nodules pressing against the general covering in which they were all contained.

Had he followed up the train of thought expressed in this paragraph, prostatectomy would have been introduced nearly one hundred years ago. He had thoroughly studied the symptoms of prostatism and he was well aware of the dangers. On pages 31 and 32, Vol. 2, he says:

Upon the present occasion, when treating upon a disease in which the symptoms if not early attended to increase rapidly and prove fatal, it is peculiarly necessary to state all the fatal consequences of delay by showing the mischief that is produced by it.

Instead of seeking a solution of the problem by operative interference, always with the idea that it was the enlarged middle lobe that caused the distressing symptoms, his attention was given entirely to the perfection of the drainage of the bladder in such manner that the congestion of the part would be allayed and the cure, relative or total, of the affected obstruction be obtained. He very properly considered that the diseased condition had nothing whatever to do with any constitutional vice or general depression. Of this he says, page 86, Vol. 2:

I am induced to consider the disease of which I am treating as one that is entirely local, produced by local violence, kept up by local circumstances and having all its symptoms aggravated by a succession of causes of irritation belonging to the natural action of the organs to which the prostate gland is attached, and I am sorry to say that the disease has not only its progress increased, but unnecessarily produced by the unskillful use of the instruments employed for its relief, and has been too often the means of putting an end to the patient's life, which, had the case been differently treated, there is every reason to believe, by reference to the other cases, might have been preserved for many years.

He was the originator of prolonged drainage for the relief of retention and cystitis due to an enlarged prostate. He was fortunate in discovering the original Weisse, who manufactured for him elastic catheters of high grade, which could be retained in the bladder for weeks, and he sometimes retained the catheter for so long as from one to three months, until the bladder would for a time regain the power of emptying itself. He was firm in his belief that these cases seen at the right time, and treated by drainage in this way, became entirely well, for he says:

As cases of the disease do not always come under our care in the earlier stage, it frequently happens that too much has been done and the parts too much injured to admit of the recovery of the patient. Were it otherwise, I am very sanguine in my opinion that most of them might get well.

The precepts of Home were dominant for more than fifty years, and surgeons and physicians

looked upon the enlargement of the prostate gland as a trouble which could not be removed by operative measures. This was further strengthened by the dictum of Guyon, who with his powerful Necker school, for many decades has moulded surgical opinion upon this subject in France, and through those educated in the French universities much of the opinion of the world. It was not comprehended that the problem presented was peculiarly a mechanical one, that prostatism consists solely of the obstruction caused by the encroachment of growths arising from the abnormal development of the glandular, fibrous or muscular structures contained within the capsule of this organ pressing upon the urethral tunnel, upon the internal urinary meatus, or upon the muscular tissue of the bladder wall, interfering by pressure with its innervation or with its contractile rhythm.

In addition to this, a variety of other reasons held the knife in check—the fear of hemorrhage which could not be controlled by reason of the depth at which the vessels were situated; the terrors of vesical tenesmus; the fear of contamination of the wound by the urine discharged upon it; and, before the age of aseptic surgery, the fear of urinary infiltration and gangrene, bound the surgeon to the doctrines of Home and Guyon.

Tentative and careful were the first bold spirits who planned the intentional removal of prostatic obstruction. From time to time, in operating for stone or for tumor of the bladder, a projecting and obstructing prostatic prominence had been removed with its covering of bladder mucous membrane by snare or ligature and scissors, but I think the first deliberately planned and executed prostatectomy was done by William Bellfield of Chicago, in 1886. Since then numerous workers in various parts of the world have developed various methods for attacking and removing prostatic obstructions, only two of which are worthy of attention.

Either the obstructing portions of the gland are shelled out or excoriated through an incision made into the membranous or prostatic urethra from the perineum, or they are removed through a cut made through the belly wall and anterior wall of the bladder.

The instruments necessary for the perineal route are very few. A sharp bistoury to sever the skin and perineal muscles; a sharp lithotomy knife to enter the urethra; a staff (full curved by preference); a probe pointed, narrow gorget to enter the incision made in the membranous urethra and pass on to the bladder; a Blizzard knife and a pair of uterine dilators to enlarge the incision; a long-handled, blunt capsule knife or a pair of forceps, to open the capsule of the prostate; two or three long-pointed curved tenaculi, to pull the loosened tumors down and prevent them from slipping into the bladder while being

enucleated; a narrow packer, to introduce a gauze trailer along the finger into the capsule of the prostate to still the hemorrhage; a short metallic tube, No. 36 F evacuating, with a very large eye on the upper surface, almost at its end, so that it cannot become obstructed by clots, or if it does, so that a Chismore evacuating bulb can be attached to pump them out, and a strong, long-handled rongeur are what I make use of. In many cases one may get along with a knife and a staff, if he is inclined to operate for show, or in the same spirit which prompts the ship carpenter to build a boat with an adze. All of the various devices which have been introduced for the pulling down of the neck of the bladder or the prostate, such as the rubber retractor of Simms or the metallic ones of Ferguson and others may be easily dispensed with, as they do not facilitate the operative work, but rather impede it.

The position of the patient advocated by George E. Goodfellow of San Francisco and Tucson, of extreme flexion of the thighs upon the abdomen, and the legs upon the thighs, is of much greater importance and assistance than all of these devices. There are very few cases which may not be successfully operated through a simple median perineal incision carried through the skin and the perineal muscles from the scrotal junction to a point about one-half inch in front of the anus, care being taken not to sever the anal sphincter. Exceptionally, a prerectal or inverted Y incision may be necessary. My experience, however, with it has not been satisfactory. In three cases in which I used it, and in three others operated in Chicago, and which afterward came under my care, the scars left were painful for many months. One of my own cases required a secondary operation for relief of the pain and the obstruction to the urethra caused by the contraction of the scars.

For the removal of the prostate by a suprapubic cut, precautions are necessary to keep out of the abdominal cavity and to avoid disturbing the cellular tissues in the space of Retzius. The first is best secured by placing the patient in the full Trendelenberg position after cutting through the skin and abdominal muscles. The second is accomplished by sewing the anterior bladder wall tightly up to the transversalis fascia by a few catgut stitches just before or immediately after opening the bladder. This effectually cuts off the space underneath the symphysis from injury and infection. The sides of the cut in the bladder should be secured to the recti muscles by two or three silk or silkworm gut ligatures on each side. The time thus occupied is well spent, for it avoids much trouble after operation. The bladder being thus secured, the prostatic outgrowths are sought for with the finger, the capsule is opened, and they are enucleated,

if possible through an incision made through the bladder neck centrally or laterally, as the case may demand.

For this purpose it is better to use some sort of blunt instrument which will tear more than cut, as the hemorrhage is less. These tumors are sometimes so dense and adherent that they cannot be removed by enucleation. They must then be removed piecemeal with rongeurs or serrated scissors and long tissue forceps, the index finger of the left hand being used as a guide for the amount of tissue to be removed and the force necessary to remove it. This is very tedious and sometimes a very bloody procedure, but withal one that gives very satisfactory results.

When I use sectio-alta for prostatectomy, I nearly always make a median perineal incision to utilize for counter-pressure, and if this is not done I obtain the necessary support from the hand of an assistant within the rectum. I drain these cases always with the DePezzer tubes. The instruments required for the operation are a knife; a half-dozen pairs of artery forceps, which should be smooth-grooved, so as not to tear the bladder; some well curved needles, both round pointed and sharp pointed; a pair of blunt pointed or serrated scissors; two or three pairs of long-handled and strong-jawed rongeurs; a staff for the perineal incision, if it is made, and one or two DePezzer suprapubic drainage tubes.

In considering the advisability of the doing of a radical operation in cases of difficult or impossible natural micturition, caused by enlarged prostate, it is well to be conservative, without being unduly so. I have heard it stated by some operators, and read in the writings of others, that the proper time to enucleate an enlarging prostate, or do a Bottini operation upon it, is when the irritation phenomena which usher in prostatism—increased urinary frequency, pelvic burning and straining—associated with the evidences demonstrable to the finger in the rectum, with perhaps the presence of a little pus, or from time to time a few red corpuscles in the urine, are first noticed. With this I cannot agree, for by proper medical aid, which includes careful hygienic measures, the evil hour of operation may be put off quite a number of years without great detriment to the prostatic. But when once the trouble becomes so great that the treacherous existence of a catheter life is forced upon the person operation should be urged, because then a new and continuous element of danger is ever present—I mean the constant threat of septic poisoning from unclean materials carried in by the catheter. However particular the individual may be, it is not possible for him at all times to be either gentle with the introduction of the instrument or clean with the lubricant or his immediate person. He is day by day, even hour by hour, risking his existence upon a gamble that he will not infect himself, and

he had far better take the small chance of death necessary to obtain a radical cure by operation.

The remark is often made to me by medical men that it is useless to think of relieving certain people by operation for enlarged prostate because they are too old. No one is too old for these operations. I have done a successful Bottini upon a man of ninety, bent nearly double, and I have known successful prostatectomies to be done upon several gentlemen who were more than eighty. The statements often come from the same source, "He cannot be helped, for his urine is full of albumen and contains casts" or, "He has stone in the bladder, and you can't do both operations at once." "It will take too long," or "He can't stand the two operations; he is too weak." While carefully noting these factors I do not let them influence me. You have to operate these people as you find them and not in the condition you would like to have them. If they were in good shape they might not need an operation, and unless they were inoculated with what might be termed operative fever, they would most probably not consent to one.

The presence of pus, of blood, of albumen in limited quantities, of casts of any kind, excepting amyloid, are not contra-indications for the doing of either prostatectomy or prostatotomy. Nor does extreme age, long sickness, feebleness within reasonable limits, or septic symptoms such as nausea or hiccough, prohibit surgical interference. There are just three contra-indications to which I pay attention: First, a tendency to bleed freely from very slight injuries; second, the existence of serious heart lesions accompanied by a great general muscular feebleness; third, and most important, is the inability of the kidneys to secrete a reasonable quantity of urea, and what I consider a reasonable quantity in these cases is from 15 to 25 grammes per day. In a number of the cases which got well for me after operation, the daily quantity of urea for weeks had not exceeded 15 to 20 grammes per day. This outcome seems really wonderful, when the severity of the operation and the loss of a quantity of blood, which is always very considerable, when proportioned to the age and strength of the individual, is taken account of.

I do not know what considerations control other operators in the selection of their cases. I take mine as they come, doing a perineal or suprapubic excochleation, or both, or the Bottini operation, as my judgment dictates for the particular case. I never refuse to make the attempt to relieve the sufferings on one of these miserable wretches, no matter how bad his condition may be, if his kidneys work in such a manner that I believe with care they may be kept from striking on him during his recovery from the surgical injuries necessarily inflicted in the attempt to remove the cause of his condition. Some have

come to operation with me that a surgeon desirous of having entirely favorable statistics might have refused to operate.

One need not be so discouraged as not to attempt to relieve the patient unless the individual is one of the three classes which I have designated as unfavorable. If the percentage of urea runs so low that any decided hemorrhage is very dangerous, or if the person is so feeble that it is risky to confine him to bed for a few days, or if he has a bad pyelitis, it is better to do a Bottini operation and chance his being in a better condition later for a prostatectomy if the Bottini operation does not give him permanent relief. I have had occasion to enucleate the prostates of three persons upon whom I had done Bottini operations, which gave very excellent relief for a time, varying from one to two years, and speak positively when I say that the scars left by the Bottini do not in any way seriously interfere with the subsequent enucleation of the tumors. The scars are soft and pliable, quite contrary to the teachings of certain urologists who have had no personal experience with them.

When it is known that the obstruction is cancerous enucleation should not be attempted, for such cases usually succumb to primary or secondary hemorrhage. An exception was one of my cases, an enormous spindle-celled sarcoma weighing about two pounds, which included all the prostatic substance, but not its capsule, and which had not invaded the urethra, but had attacked the anterior wall of the rectum, was successfully removed by enucleation through an aperture made in the anterior wall of the rectum, with primary recovery, and no recurrence up to the time of death from other causes, four years afterward.

If, when the urethra is opened, cancerous structure is recognized by the fingers or eye, a prostatotomy made with the apparatus of Young, Freudenberg or Chetwood by the Bottini method offers the only relief to the sufferer, for if the burns are made slowly, with the ampere meter registering not less than 45 nor more than 50 amperes, it will make a wound which will not bleed and will heal perfectly. If the enlargement is very dense and cement-like, and when the capsule is slit the tumors enucleate with great difficulty or not at all, I believe it is better to attempt the relief of the patient by a Bottini operation done with the parts in sight, than it is to channel a ragged and uncertain groove through the obstruction with rongeur and scissors.

Some operators teach that all prostatectomies should be done by sectio-alta, and some claim that the suprapubic cut is never necessary; that all obstructions may be removed through an incision in the perineum. Neither is right in his contention. It is true that however peculiar and irregular the shape of the encroachment of these

tumors on the urethra and bladder may be, provided they are not fibroid or myomatous, when skill is acquired in enucleation, by the aid of hooked retractors or stout tenaculi, nearly all may be brought down through a median perineal incision and delivered without entering the bladder. If the bladder must be entered, it is better to do so by cutting directly through the neck posteriorly by the backward cut, originally proposed by Harrison, as a cure for prostatism. By this means the finger can, in most instances, be easily passed into the bladder and swept over its posterior and lateral surfaces, feeling for isolated protuberances, large or small, beneath the mucous membrane, sometimes unconnected and sometimes connected with the body of the prostate. Such tumors can often be opened with a long-handled capsule knife with the finger as a guide, enucleated and delivered.

I have seen a few cases where the enlargement sprung out from one side of the prostate high up, projecting into the bladder without coming in contact with its base, hanging down into the urethral mouth from the top wall, so to speak, and acting when the bladder was full like a ball valve, exactly as the so-called middle lobe is supposed to act. I have met small adenoid nodules set in an inflammatory cement directly around the bladder mouth, pouting into the mucous membrane just enough to stop it up, and if one removes a mass as large as a fist, and leaves such little fellows, which are the real obstructing portions, undisturbed, the operation will either be wholly or partially unsuccessful.

Again, the tumors projecting into the bladder may be fibroid, and after the adenoid nodules from about the prostatic urethra have been removed, it is found that no impression upon the obstructions beyond the bladder neck by an attempt to excochleate can be made. Sometimes on entering the prostatic urethra and commencing to enucleate, a dense fibroid or myomatous growth through which a channel can only be cut with the rongeur is found. In all such cases it is necessary to open the bladder suprapublically for the removal of the obstructions.

I confess the greater my experience the more it troubles me to add this extra cut. In such prostates the bladder is usually very foul, and the belly wound becomes easily infected. As great speed in the doing of these operations should be used as is consistent with thoroughness, and this will vary with the operator. The one operating must know how much or how little is necessary to do. Speed in operating may prove to be very delusive. I know one operator whose speed is said to be remarkable, but he has never had an approximately perfect result.

If the cystoscope can be introduced into the bladder before operation and projecting nodules of considerable size can be seen upon the superior

portion of the lateral quadrants or the superior quadrant, or springing from the prostate on one side far away from the bladder neck, I prefer always to make the suprapubic cut for removal of the obstructions, making the perineal cut afterwards, if upon examination it appears to be necessary. The after-treatment of these cases is generally easy enough if you have a skilled nurse, otherwise it becomes a subject which is often disagreeable and unusually burdensome, onerous and time-absorbing for the surgeon.

If the work for the removal of the obstruction can be done without disturbing or breaking through the outer capsule of the prostate or tearing the neck of the bladder, the immediate hemorrhage is not alarming; but when compared with other surgical operations, with the exception of those about the face, the hemorrhage is always quite considerable, and sometimes where the arteries are sclerotic, or some of the large veins of the capsule are opened, it is severe and not always easy to control. The best method of doing this is to use hot water to 120 degrees, the tissues of the perineum, buttocks and scrotum being protected by sterilized vaseline. If this does not suffice, the wound can be slightly packed with gauze, moistened in a solution 1-1000 of adrenalin chloride passed in along the finger and carried up inside the capsule on each side.

Some operators do not drain, declaring it to be unnecessary. If the urine be clear and sweet its contact can never do any harm to the perineal wound unless the raw surface extends beyond the tissue of the capsule of the prostate. When the urine is alkaline, or rather ammoniacal, and the bladder has contained calculi or incrustations upon ulcerated bosses of the prostate, or where there is fear of hemorrhage, it is much better, I believe, to drain. For this purpose, I at first used Watson's perineal drainage tubes but they are too short to fit all perineums, are not very comfortable and are expensive. I then used the Tiemann soft rubber perineal tube which has a double eye, one at the end the other on the upper surface near the end, having them made in calibers from 30 to 40 F. These do not readily become plugged, but should there be a late copious hemorrhage into the bladder at the end of 24 or 48 hours, filling this viscus with clots, the tube is useless to assist in their evacuation. Two experiences of this kind led me to adopt the tube I use at present which is a metallic one 18½ cm. long, the caliber 36 F. with a large smooth eye 2 cm. long by 1 cm. wide situated near its rounded end. It is really a short evacuating tube and is made to fit the Chismore evacuator, with which attached, the bladder may be easily emptied of clots, no matter how copious the hemorrhage has been. It is worn with great comfort, does not cause tenesmus, and is usually removed at the end of the fourth day with the packing. I think

it is a very valuable devise for perineal drainage after bloody operations upon the bladder or prostate and can recommend its use to others. It is securely held in place by tapes tied back of the winged flange and fastened with safety pins to a broad band about the waist, two in front and two at the back. Continuous drainage is provided for by a piece of large-sized drainage tube attached to the metal tube and connected by a glass reduction tube to six feet of quarter-inch caliber rubber tubing which emerges from the foot of the bed and ends in a graduated bottle on the floor. This tube is so arranged with safety pins that the patient can move freely in bed without disturbing the tube in the bladder. If further drainage is required, use is made of the Tiemann perineal tubes, their caliber being reduced gradually to 20 F.

The patient's bowels are moved freely at the end of the first twenty-four hours, and afterward once daily, using such laxatives as are not disagreeable to the individual. After removal of the packing the deeper parts of the wound are not repacked, but the superficial parts are slightly stuffed with gauze, to prevent contamination with fecal matter.

During the first twenty-four hours 10 minimis of the solution of adrenalin chloride 1-1000 are given every two hours hypodermatically as a hemostatic agent and cardiac stimulant, and usually 1-30 grain of strychnia at the same time. After the first day the medicines are continued at longer intervals when necessary. When the hemorrhage came directly from the bladder, I have several times succeeded in stopping it by the injection of an ounce of the solution of adrenalin chloride 1-5000. In all of my important operations upon the urinary tract for the last eight years, I have had two quarts of normal salt solution given by hypodermoclysis while the patient is on the table under the anesthetic, and this is repeated every three hours after he leaves the table until the drainage tubes show a free secretion of urine. In all this time I have never lost an operative case from suppression of urine or uremia.

I have operated forty-nine individuals ranging in ages from 49 to 80 years, for enlarged prostate with retention and catheter life, by what is known as total prostatectomy, which, of course, does not mean the removal of the organ, for this is not possible, excepting it be thoroughly ripe, when it can be stripped off the urethra like a bead off its string, as in the cases reported by Gibson and Paul Thorndyke. Prostatectomy means rather the removal of such tumors as can be shelled out or it be necessary to cut out, in order to clear the channel for the free passage of the urine. Twenty-eight of these were perineal operations, twenty-one were suprapubic. Of those operated upon through the perineum there

were four who died. Two of these, the youngest, were aged 47 and 49, and had had carcinoma of the prostate. One of these had also an impassable stricture, requiring perineal section without a guide. The prostate was known to be enlarged, but was not believed to be obstructive, until an attempt was made to enter the bladder with the finger through the membranous urethra—the hard nodules, four in number, felt fibroid and were removed. The individual died from secondary hemorrhage on the fourteenth day. He was an alcoholic and had not passed any water for three days when he came into my hands. The man of 49 was a poor farmer, who had led a catheter life for three years. There was increasing difficulty in the passage of the instrument until its introduction became almost impossible. The prostatic prominences felt smooth, but were dense and rather difficult to excochleate. They did not look cancerous nor feel distinctly so, but proved to be carcinomatous upon microscopic examination. This man died within twenty-four hours from loss of blood. The third had fibrous stricture of the entire urethra complicated by cancer of the prostate. This was recognized as cancerous, but there was an obstructing nodule which could not be removed by the Bottini and it was cut away as a palliative measure of last resort. He died from secondary hemorrhage. The fourth was a large, fat, asthmatic of 73, with an enormous prostate. Operation was required to relieve him of atrocious suffering of long duration. He contracted the gripe on the fifth day, and died of cardiac failure from non-septic pneumonia on the ninth day, when his prostate wound was nearly healed. Of the suprapubic cases my first, a man of 60, was complicated by stone and an impassable stricture and died on the third day of uremia. This was before I commenced to use normal salt solutions by hypodermoclysis in my operations. My third case, a poor and ignorant Mexican, 74 years old, commenced to urinate naturally and left the hospital before his wound was thoroughly healed. He was careless and got fly-blown. He returned to the hospital three weeks after he had left, the whole pelvis filled with maggots which had eaten through the cartilage of the symphysis, causing separation of the bones. He died in a few days. The next fatal case was that of a man upon whom I had done a Bottini operation for a pear-shaped median intervesical projection. My assistant had turned on too great an amperage and the platinum knife being too hot it did not close the blood vessels. The result was a profuse hemorrhage within an hour, to which my attention was called by the ward nurse after I had finished a prostatectomy upon another man. His bladder was opened suprapubically and no cut or tear I made in the operation stopped bleeding till he died in a few hours. Two years ago a patient

upon whom I had done a combined prostatectomy died on the seventeenth day. His suprapubic wound was almost healed and he was urinating naturally. He had not had a single adverse symptom; he had been sitting up in bed talking pleasantly to his nurse and a relative, making plans for the future, when he put his hand to his heart with a sudden cry of pain and was dead before they could assist him, probably from embolism. No post mortem was allowed.

In 1902 I operated a man of 68 who had been ailing for many years with a stone in the bladder and a very tight stricture, together with an enlarged prostate. He had had a number of severe hemorrhages caused by the stone, which was a very rough one, and was much exhausted. He had a great terror of operations, and it was only when he was very sure that he would die that he consented to be operated upon, to satisfy his wife and his children. He refused to take proper nourishment, or could not take it, I do not know which, and died of exhaustion about ten days after operation.

To those who calculate by percentage alone, this list of nine deaths may seem a high one; but in all of these cases but two a painful death was certainly known to be rapidly approaching, and the operation should in no way be charged with the death. In the case of the farmer of 49 with cancer, if I had suspected the nature of the diseases before operation, I should have done a Bottini upon him, or have established suprapubic drainage with a DePezzer or Senn drainage tube, and thus have prolonged his life. With the case of hemophilia the death is hardly chargeable to prostatectomy, but rather to the carelessness of a hospital assistant in not watching the amperage of the current used to heat the blade in the preceding Bottini operation, for the pear-shaped nodule with its pedicle was cut in half as beautifully as if done with a knife. I do not know that the man who was supposed to have died from an embolus did so at all, but his prostate had been removed seventeen days before and he had not left the hospital, for his wounds were not entirely healed. He died suddenly, and death may have been caused by the operation. The maggot case was clearly criminal neglect on the part of himself and his relations in removing him from the hospital. Deducting these five cases from the total of 49 we have four deaths in 44 cases, which is 9½ per cent, including two cases which in the light of my experience I should never have operated except by the Bottini method.

From reading the text on almost any modern work on general surgery the average physician might readily conclude that these operations are very uncertain in their results and very dangerous. This represents ultra-conservatism, the disagreeable point of view which always tends to

retard the advancement of good work in surgery. And then again, after reading the articles published by certain operators who have no deaths, and whose cases are always thoroughly healed and recover the voluntary power of urination in eighteen or twenty days, grave suspicions that the reports are doctored to gain a desired reputation for extraordinary skill are more than likely to be entertained. The former make the operation too difficult to attract the ordinary surgeon, the latter make it appear so easy and so certain in its results that it must inevitably cause great damage and loss of life by its being entered into very lightly by many who are incompetent to perform it properly or take good care afterward of those operated. No one operation is suitable to all cases, and the ultimate results which are very excellent in the majority are sometimes far from being perfect. Performed as they are upon old men whose bladders are diseased and misshapen, whose urethras are often the seat of tight strictures and whose kidneys act very imperfectly, whose nutrition is poor, and who too frequently are the subject of the diseases of the other vital organs, the wonder is, not that we do not always obtain perfect success, but that we ever do so; and not that we sometimes lose a man from operation, but that any ever get well.

The coast is well charted and it is not necessary for us to be wrecked upon the known reefs or point of rocks that may be seen. A death from uremia, where proper precautions have been taken before, during and after the operation, is entirely unnecessary. Death from purulent infiltrations of the abdominal wall or the perineum is also easily prevented. But the perils of secondary hemorrhage, of thrombosis, of testicular abscess, of multiple abscesses of the kidney, or of the imperfect removal of the obstruction by perineal operation, are things which cannot always very well be provided against.

(To be continued.)

**With Eminent Fairness**—We of Southern California are especially pleased with our President and with the election of Dr. L. S. Thorpe on the Board of Examiners. We all know that Dr. Thorpe will be able, fair and painstaking in the performance of his duties. We are glad also to see Dr. J. G. Baird of Riverside and Dr. F. C. E. Mattison of Pasadena on the Board of Trustees, and Dr. F. M. Pottenger as alternate on the Board of Examiners. The State Society always treats Southern California with eminent fairness, and we believe it is not assuming too much for us to say that Southern California, in proportion to her population, does her full share toward maintaining the high standard of the work of the Society.—*Southern California Practitioner.*

## A FEW REMARKS ON GASTRIC SURGERY.\*

By DUDLEY TAIT, M. D., SAN FRANCISCO.

WHEN we consider the constant increase in the number and variety of gastric surgical interventions during the past five years, and that the list of operative indications now invades farther and farther the heretofore prohibited medical domain, it may not be amiss to halt an instant, scan some of the methods employed, and estimate the amount of benefit accruing from this operative furor.

Perhaps, in the opinion of the great majority of surgeons, posterior gastro-enterostomy (von Hacker's operation) constitutes the most popular of abdominal interventions. It is generally considered the most plausible, facile and beneficial procedure, the operation of choice in three-fourths of gastric surgical conditions. Nevertheless, experienced surgeons are of late performing fewer gastro-enterostomies, and their mortality in this operation is higher than formerly. Why this change of attitude? Let us first consider malignant cases.

Here, gastro-enterostomy is being rapidly superseded by pylorectomy and gastrectomy, which afford better immediate and late results. No one who has followed attentively a successful case of gastrectomy can fail to note a radical change in the patient's condition, contrasting strikingly with the result of the palliative procedure of short circuiting. Furthermore, the average survival is greater in pylorectomy than in gastro-enterostomy.

Krönlein reports an average survival of thirteen months, Hartmann twelve months and a half, Mickulicz and Mayo twelve months; whereas, in gastro-enterostomy the survival averages four months. In many cases recurrence after gastrectomy has taken place as late as the third and fourth year. Mortality in gastro-enterostomy has gravitated from sixty to thirteen per cent (Terrier and Hartmann). At the last German Surgical Congress the average given was nineteen per cent.

I wish to remark parenthetically that a few months ago, during a meeting of the San Francisco County Medical Society, statistics were quoted giving Witzel a mortality of one per cent. After a thorough search of Witzel's published cases I failed to verify this statement. Hence an investigation on my part while in Bonn, at Witzel's hospital, last March. A slight error had been made. The one per cent should have been multiplied by 20. Pardon me for interjecting this remark. We ought to be better acquainted in San Francisco with foreign bibliography, as our medical library is submerged with German periodicals; but unfortunately the majority of them are never read or even opened, for the pages remain uncut.

Two years ago Terrier and Hartmann reported a mortality of thirteen per cent in gastro-enterostomy; since then their mortality has increased. The Mayo brothers report a similar increase in mortality. Perhaps the most logical explanation of

this apparently paradoxical statement is to be found in the corresponding increase in the number of pylorectomies and gastrectomies, the palliative procedure being reserved for extreme cases.

In benign affections, gastro-enterostomy has almost run riot. Every stomach condition known to the internalist, neurologist, or surgeon, has been subjected to an anastomosis. The complaisant medical confrere has willingly and conscientiously committed to the surgeon's care scores of acute and chronic gastric and intestinal affections and waited patiently for the promised miracle. What has been the result? To one who will take the necessary time to visit the wards of several important surgical centers, the answer is quite obvious: Neither the surgeon nor the physician is truly satisfied; an increasing percentage of recurrences confronts both.

These unsatisfactory results, I believe, may be ascribed to one of two causes, frequently to both: First, faulty diagnosis, as so frequently illustrated in atonic dilatation or in neurasthenic conditions, two classes which play no small part in the clientele of this country. Second, faulty operative procedures.

For the past three years the French school, with Terrier and Hartmann of Paris, Roux and Bourget of Lausanne, has made it an invariable rule to study most completely, in every case, the gastric contents and functions prior and subsequent to operation. Consequently, in reading the post-operative reports from these clinics, few complications will be noticed; recurrences of perforating ulcers, hyperchlorydria, dilatation or stasis are seldom seen. The neurasthenics and simple dilatation cases never leave the medical wards. It were difficult to find a more forcible instance of the utility of the co-operation of the physician and surgeon than in this class of obscure cases; and this assertion loses none of its force when applied to the expert in laboratory methods, whose field of usefulness some Eastern authorities, with sentimental or literary arguments, persist in ignoring or belittling.

In regard to the second factor—faulty operative procedures—several facts of great value have been recently brought to light. The time-honored von Hacker anastomosis, posterior trans-mesocolic gastro-enterostomy, is undergoing an attack from numerous sides. Volumes have been written on the cause and prevention of vicious circle following gastro-enterostomy; many have commented on the complications attending the contraction of the opening in the mesocolon; others have shown that the gastric opening is generally too high on the posterior wall and not in the most dependent portion of the stomach; recurring perforating ulcers, after gastro-enterostomy have been reported by Heidenhaim, Goepel, Hahn, Quénau, Routier and others. But, most important of all, a marked contraction of the anastomotic opening, amounting to almost complete obliteration, has been found in numerous cases. The brilliant and clever Mayo brothers

\*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

have carefully investigated the gastric conditions in a series of their own cases presenting a recurrence of symptoms after gastro-enterostomy by means of the Murphy button.

In several cases operated for non-stenotic conditions they found, upon reoperation, a marked contraction of the anastomotic opening, and forthwith excised the entire area, closing the gastric and intestinal surfaces and making a modified pyloroplasty operation. Finney of Baltimore reports similar findings. The explanation suggested by Mayo is as follows: If, in a non-stenosed case, a second outlet is made by gastro-enterostomy, the stomach is thereby provided, from a physiological standpoint, with one superfluous outlet

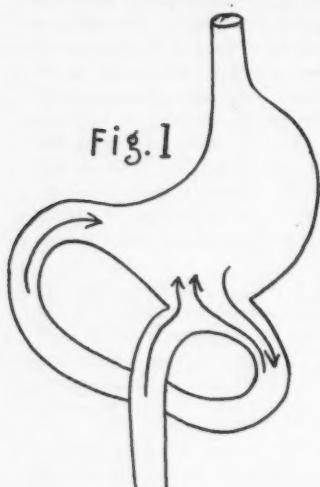


Diagram showing the four different modes of reflux.

which must inevitably disappear. Hence the rapid closure of the new opening. In order to substantiate these views Mayo recently made a series of operative tests: First, pyloric excision; second, exclusion; third, closure of the pylorus with silver wire, a gastro-enterostomy being done in each case. It is too early to draw conclusions from any of these experiments. I would suggest the propriety of obtaining the converse proof by demonstrating the presence of contraction in the common cases presenting pyloric stenosis at the primary operation and subsequently showing a previous pylorus.

Dissatisfaction with the usual methods in benign gastric affections has, within the past eighteen months, caused the adoption of simpler and more direct methods of anastomosis, the two principal types of which are lateral (subpyloric) gastro-duodenostomy and its modification by Finney, who very cleverly combined the Heinecke-Mickulicz pyloroplasty with gastro-duodenostomy.

Proposed and first utilized in 1897 by Villard of Bordeaux, lateral gastro-duodenostomy was derived

from an operation performed by Jaboulay in which a fold of the anterior wall of the stomach near the greater curvature was anastomosed with the second portion of the duodenum. Villard chose the prepyloric portion of the stomach, *either on the anterior or posterior wall*, descending more or less toward or drawing upwards the greater curvature, according to the degree of dilatation of the stomach.

With the anastomotic opening at this point of the duodenum, the surgeon is no longer confronted with the dangers of vicious circle or hypo-acidity and retarded digestion due to the reflow of bile or pancreatic juice into the stomach; and, although drainage from a more dependent part were apparently more logical, Terrier proved that in the

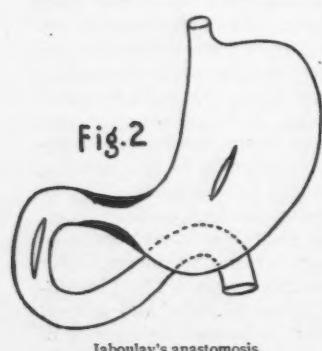


Fig. 2

Jaboulay's anastomosis.

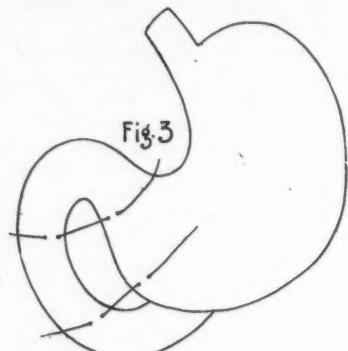


Fig. 3

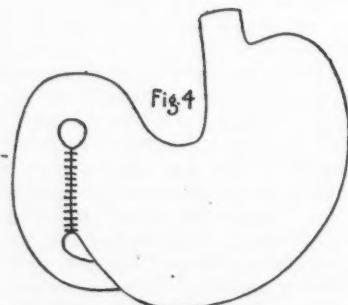
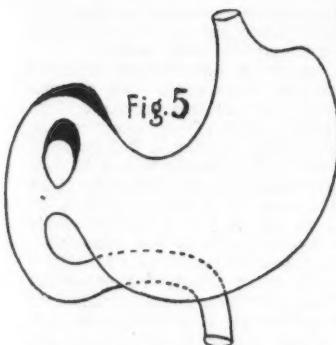


Fig. 4

Upper and lower approximation sutures in Villard's operation.

majority of cases the stomach contracts to its normal size subsequent to anastomosis. While in Berne recently I noted a pronounced enthusiasm for lateral gastro-duodenostomy which the eminent Kocher had at that time performed six times (one malignant, five benign cases). Furthermore, in a recent article of the *Centralblatt*, Kocher makes a strong plea for this procedure to which he attempts to attach his own name, and describes a very practical addition to the original operation of Villard, thereby widening its sphere of usefulness.

He liberates the second portion of the duodenum from its lateral and posterior peritoneal attachment by incising vertically the thin layer of parietal peritoneum to the right of and parallel to the descend-



Result Villard operation pyloric obstruction.

from the anterior surface of the spine, vena cava and aorta. The lower flexure of the duodenum can also be mobilized in the same way by splitting the peritoneum, passing down to the colon. These maneuvers mobilize the vertical portion of the duodenum to such an extent that it can be readily laid against the anterior surface of the pyloric portion of the stomach. The technical difficulties of the original method are thus reduced to a minimum, and, in most instances, the subse-

quent work can be done with ease and accuracy outside the abdominal cavity. Finney of Baltimore has also liberated the second portion of the duodenum in a series of pyloroplasties.

Lateral gastro-duodenostomy, I believe, will not replace von Hacker's posterior gastro-enterostomy, nor will it supplant the Finney operation. It is entitled, however, to a position of prominence between the two.

Surgeons are prone to forget the role of the French school in the creation of the cardinal principles governing intestinal surgery, the sero-serous approximation as formulated by Jobert de Lamballe, the non-perforating stitch as advocated by Lembert and lateral anastomosis for which we are indebted to Maisonneuve. Hence my reference to lateral gastro-duodenostomy as "Villard's operation."

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## REPORTS OF MEDICAL SOCIETY MEETINGS.

## HUMBOLDT COUNTY MEDICAL SOCIETY.

## APRIL MEETING.

Society met April 14th at Eureka, Dr. R. Felt in the chair.

Paper was read by Dr. G. N. Drysdale of Eureka, on "The Difficulties Encountered by the Surgeon Operating in Isolated Country Districts." The greatest difficulties were due to the impossibility of getting trained nurses and assistants, and in the absence of them, the surgeon had to do the work of the nurse himself. In preparing for an operation the ordinary nurse or women of the family had no idea of surgical cleanliness and the surgeon had to make all the preparations himself or be on hand to superintend. At the operation the surgeon had to give his attention not only to the operation, but to the anesthetist and assistants. After the operation the surgeon had to care for all instruments, etc., himself, and in a serious case he had to attend to the nursing of the patient himself. If he did not, he would find that the sympathizing nurse or friends of the patient would give him whatever he called for, and would probably neglect to give him what he should have. As an illustration the doctor gave an account of a case when he was called upon to do a vaginal hysterectomy while practising in the country. He had as an anesthetist a dentist who knew very little about anesthetics; as first assistant he had another doctor of the place, and as second assistant a barber, selected because he was naturally clean and would do as he was told. There was no nurse and he had to take charge of the nursing until the patient had recovered sufficiently to be left with her friends. In most cases, if the surgeon attended to the detail work himself, good results could be had, but it meant a sacrifice of too much time and the fees would not compensate him.

The discussion following was taken part in by Drs. Wallace, McLaren, Felt, McKibbon, Kime, C. O. Falk and Sinclair.

## MAY MEETING.

Meeting held in Eureka May 12th. Dr. T. L. Loofbourrow presiding in the absence of Dr. Felt.

At this meeting the report of Dr. McLaren, delegate to the State Society meeting, was heard. Dr. McLaren thought from opinions of members he had talked with at the State meeting, that it would be possible to get the 1905 meeting of the State Society for Eureka. It was the opinion of the society that Eureka could accommodate and entertain the members of the State Society as well as any town in the State, and that the members of the profession in Humboldt should work for the 1905 meeting.

Dr. H. S. Delamere reported a case when death of the fetus at the eighth month occurred in two consecutive pregnancies in a woman who had previously borne healthy children. He had made a diagnosis of syphilis transmitted by the father, the mother never having been infected. From reports he had heard he thought it probable the father had become infected after the birth of the healthy children, but he was never a patient of the doctor's and this diagnosis had to be made from the evidence presented in the fetus and placenta. The case was discussed by Drs. McLaren, Wallace, Sinclair, Chas. Falk, Drysdale, Gaynor and Loofbourrow, who agreed with Dr. Delamere as to diagnosis.

Dr. Chas. C. Falk reported a case of carcinoma of pylorus with dilatation and perforation of stomach, presenting unusual features which made it impossible to make a diagnosis without an exploratory operation. The patient, a woman, had complained for several years of pain in the lower part of abdomen on left side; menstruation had been irregular, painful, and

at times the flow was excessive; stomach symptoms absent; bowels regular. On left side of abdomen, below umbilicus could be felt a tumor, apparently as large as a man's fist, and movable. Vaginal examination showed uterus normal in size and position; right ovary normal in size; left ovary not located. A diagnosis of probable ovarian tumor was made and operation advised. Under anesthesia the tumor was found to be fixed and on opening the abdomen he found an enormously dilated stomach with the pyloric end fixed by adhesions to the abdominal wall, where the tumor had been felt before opening the abdomen. On separating the adhesions he found a perforation of the stomach of considerable size. The pylorus was the seat of a malignant growth, which, together with the adhesions spoken of, had made up the tumor felt before operation. He removed the pylorus and pyloric end of stomach and made an anastomosis between stomach and duodenum. Patient died on sixth day after operation. Discussed by Drs. Wallace, Sinclair, McLaren, Gaynor and Drysdale.

#### LOS ANGELES COUNTY MEDICAL SOCIETY

At the regular meeting held at Chickering Hall on Friday evening, May 15, the program included a paper by Dr. W. W. Hitchcock, "Organic Heart Lesions with Reference to Life Insurance," and by Dr. Randall Hutchinson, "Diagnosis of Myocardial Degenerations." Discussion opened by Dr. H. G. Brainerd.

#### SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

The subject discussed at the regular April meeting was "Fracture of the Inferior Maxilla," introduced by Dr. John White and discussion opened by Dr. Baldwin. At the May meeting the subject for discussion was "Typhoid Fever," opened by Drs. Cox and Twitchell.

#### SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting on Tuesday evening, May 12, was adjourned after approving minutes and hearing report of committee on new members. Papers as follows on the evening's program will be read at the next meeting:

"Some Clinical Chest Cases with Fluoroscopic Reports," by Dr. C. M. Cooper; "Report of Case of Lupus Erythematous," by Dr. A. B. Grosse; "Rodent Ulcer with Report of Case," by Dr. H. D'Arcy Power; "Treatment of Cirrhosis of the Liver with Ascites—Report of Case," by Dr. M. E. Kibbe; "Exhibition of Case of Resection of Clavicle," by Dr. D. B. Plymire.

#### SAN FRANCISCO SOCIETY EYE, EAR, NOSE AND THROAT SURGEONS.

Meeting held on January 15, 1903, President Dr. Louis C. Deane in the chair.

Dr. Robert Cohn on a case of cocaine poisoning: It was that of a young man about twenty years of age. Other than having just recovered from an attack of bronchitis, he was in very good health. Upon examination I found a spur of bone of the septum. Removed it with regular nasal saw. I used a twelve per cent solution and applied the cocaine on cotton to the nose frequently for some time. I warned the patient to be very careful and not swallow any. Just as the operation was finished he turned very pale and said he felt dizzy. Immediately put him into bed and almost quicker than I can tell it he was in a state of collapse. In the next few minutes the pulse ran up to 150 and 160, respiration as high as 50, 55 and 60, showing signs of extreme collapse. Almost died. Gave him 1-20 grain of strychnin; respiration more regular and slower. He complained of pain in breathing and feeling suffocated. For three hours

he was between life and death. Repeated 1-20 grain of strychnin and strong coffee enemata, keeping him awake. It was between three and three and a half hours before we could leave him with safety.

Dr. Eaton: I happen to be old enough to have worked before cocaine was discovered. Can remember when the first of it came to this country. The first patient I used it on, after giving her perhaps a 4 per cent solution, collapsed, and I thought she was going to die. Now I frequently use a 20 per cent solution and have not had an accident. One early case was an old man to whom I gave a 15 per cent solution and whiskey. Met a dentist about that time who said I would probably kill some one. Haven't yet, and now I use 20 per cent. I believe two things in regard to this: First, the psychical condition. Personally, I am extremely susceptible to cocaine. Am intoxicated by it after just a few moments. Second, would not use strychnin, but some stimulant. This case of Dr. Cohn's seems to me to be psychical.

Dr. Deane: To state whether collapse is due to the local anesthetic or not, is sometimes puzzling. There is no question that collapse can occur from psychic influences, whether of fear or a reflex from the local irritation of a nerve. It would seem from Dr. Cohn's description that his case was clearly the result of the toxic influence of the drug, as the symptoms were marked and profound; yet there are few of us who cannot state similar cases of a much milder character, the result of mere aural or nasal application where no anesthetic was used.

Dr. Powers: Dr. Cohn's patient probably collapsed from swallowing the solution, but as a rule I think the collapse is more from the idea of an operation than from the cocaine. A patient seldom faints from a moderate solution. I begin with a 10 per cent solution and keep increasing the strength until the patient is entirely under its influence.

Dr. Burnett: I think the best method is by electrolysis and then give a 5 per cent solution of cocaine up to 5mm. This will render the operation absolutely painless. Remember the case of a man who was to have a nasal operation. The cocaine was given and quite an operation was performed with no pain. But after the operation was all over there was extreme collapse. This doubtless was due to psychical condition.

In regard to the strength of the solution, 10 per cent and 20 per cent solutions are seldom found necessary. I prefer an 8 per cent solution.

Dr. Redmond Payne: The use of dionin in diseases of the eye I believe was first reported by Darier of Paris. At any rate it was upon the suggestions made by him that I began its use. So far as I can learn, neither he nor anyone else has made anything like an extended report upon its therapeutic value, and what I have to say to-night is not in the nature of complete conclusions, but simply a few clinical hints as to the effects I have found in its use. I hope, as time goes on, to make a more methodical and complete test of its therapeutic value in diseases of the eye. Dionin is a derivative of morphin and has been used successfully as a substitute for both it and codeine as a general analgesic, the claim being made that it has narcotic and sedative effects without their disadvantages. My experience with it has been in diseases of the cornea and conjunctiva only. I use it in 4 per cent and 7 per cent solutions, placing two or three drops above the cornea, which then run down over it. I used it primarily for its local analgesic effect, but found later that it produced more than the analgesia. The only remedy we have had to relieve the pain caused by corneal diseases has been cocaine, which, if used continuously, produces a bad effect on the epithelium, thereby affecting the nutritive process and repair. Further, the anesthetic effect of cocaine is only temporary and must be re-

peated. For all the painful conditions of the cornea where an analgesic is indicated, two or three drops of dionin, used in one of the above strengths, depending on the severity of the pain, will produce analgesia and complete relief from pain for from 24 to 72 hours.

*Dr. Deane:* Dr. Payne's experience with dionin has been most interesting, and though my experience with the drug has been more limited, I cannot but speak of this new and altogether unique derivative of morphin. It is essentially an eye drug, for its use in other parts of the body has not been followed by the same results. This is apparent for several reasons: First, because its action upon the lymphatic circulation is so marked. (The eye is the most perfect example of lymph circulation in the body, especially the cornea, on which dionin has such a marked effect.) Its antiseptic power can only be demonstrated here as this action is produced only secondary through the stimulation of the flow of tears and of the lymphatic circulation within the tissues.

*Dr. Brady:* "Acute Glaucoma an Initial Symptom in Typhoid." The case that I wish to present is that of a woman normally delivered of twins. She passed through an uneventful puerperum of twenty-one days; although still weak, attended to her household cares for the ensuing two weeks. On Sunday she partook of a full evening meal. About five hours later her medical attendant was summoned and found her in the following condition: Temperature, 102.5° F.; greatly exhausted from persistent vomiting; unable to raise right arm; both wrists swollen and showing purpuric nodules. The left eyelids were markedly swollen, almost to closure, with strongly bulging chemotic conjunctiva. He gave her repeated hot applications to the eye, but the pain not subsiding after twenty-four eyes, called me in. The temporal pain was then intense; lids markedly inflamed and edematous, the gelatinous and strongly hyperemic conjunctiva bulging 2mm. forward and overlapping limbus 1mm.; marked ciliary pain; iris dirty green color; pupil medium dilation; immobile; A. C. deepened; T=+2; light projection poor; light perception limited to shadow outlines. Marked yellowish green vitreous halo, no fundus detail; installation of eserine resulted in reduction of tension to +0.5 and great relief of pain. (Hot compresses continued.) Typical typhoid curve lead to widal test which was positive on tenth day.

Positive diazo: b, typhi obtained in pure culture from cephalic vein; marked anemia, red to 1,250,000, hemoglobin 35-40 per cent; bacteriological examination of genital tract and urine negative; asthenic symptoms and fever increased, asthenic lethargic on fifteenth day. No autopsy allowed.

#### BONE TRANSPLANTING, AND REPORT OF A CASE.\*

By A. W. MORTON, A. B., M. D., San Francisco.

Professor of Surgery, College of Physicians and Surgeons, and Surgeon to Santa Fe Railroad.

THE defects in bone structures heal so slowly that it is no wonder we are advised to sacrifice many extremities, which might be saved if we better understood the methods of repair.

Many surgeons, in their efforts to restore bone, have attempted to use non-absorbable material, such as silver plates, copper amalgam, plaster of paris, platinum, irridium, gutta percha, celluloid and many other substances, some of which have been very useful.

Our knowledge of this subject is limited, and most of the work done has been very unsatisfactory, which we would naturally expect when we consider that the bone proper has very little tendency to repair, and that it is principally from the osteoblast of the periosteum of the myeloplast, and of the medullary tissue.

In all the methods in use, it is necessary to have not only an aseptic cavity, but a very limited one, and a bountiful supply of periosteum.

There are indications when transplanting of bone is especially indicated.

*First*—Cosmetic effects in repairing the deformities about the nose. This method of transplanting a flap, including the skin, superficial structures, periosteum, occasionally the upper layer of bone, with a pedicle attached, is often made use of to repair the defects about the nose, face, and trachea, or to close spaces about the vault.

*Second*—To fill in the cavity of bones to hasten recovery. Small fragments of fresh bone from a person, or lower animal, or occasionally the decalcified bone chips of Senn, are used to close a sterile bone cavity. These reports should be considered of questionable value, when we consider that one of the requirements is to cover the fragments with periosteum, which has the power to reproduce bone; again, years have elapsed and the bone chips are found in the cavity without undergoing a change, simply remaining as a foreign body.

*Third*—The most important indication to be met is to restore the continuity of the long bones to support and protect the trunk. Where extensive defects in a long bone exist as a result of the destruction of periosteum and medullary structures by some mechanical injury, or disease, the only methods by which it can be repaired is to transplant a large piece of bone with vascular attachments from some point, near the defect, so that its pedicle will have plenty of blood supply; the deformity will seldom be in position to make use of any of the adjoining bone structures without interfering very materially with the function of the part.

#### CASE REPORTED.

The case reported here shows the advantage of transplanting bone from lower animals to repair bone defects in man. This is unquestionably the first successful case of bone transplanting by vascular attachment from animal to man.

August Brandstedt, age 45, Swedish descent, free from any hereditary tendencies to disease; weight 245; health has always been good; uses liquors and tobacco in moderation; occupation is that of a painter. September 8th, 1900, patient fell about twelve feet, striking on the sidewalk, producing a compound comminuted fracture of the tibia and fibula of the right leg, near the

\*Read at the Thirty-second Annual Meeting of the State Society, San Francisco, April 14-17, 1903.

lower end. He was admitted to the City and County Hospital on the same date; the fracture was set, drained and placed in a fracture box; the leg became enormously swollen, and sepsis soon developed. The patient came under my charge on October 5th, about one month after the injury; he had the appearance at that time of a person suffering from sepsis; his injured leg, including the knee joint, was swollen; temperature ranged from 100° to 103°; pulse rate from 100 to 110. A few days later an incision was made over the tibia, free drainage established, and necrotic pieces of bone removed. The parts were placed in a plaster cast (with window), and afterwards removed and kept in fracture box. His general condition improved, but there did not appear to be any repair at the seat of fracture.

On November 14th the patient was placed under the influence of medullary narcotics, and the parts opened, when I found the lower end of

above the torsus; the ulna was left one inch longer than the radius; the skin and muscles were divided by a longitudinal incision for about four inches, and left attached, except at about three inches at lowest end, which was removed to periosteum. The cut end of the ulna entered the cavity of the tibia for one inch, and was united with silver wire to same. The upper part of the incision in the leg was closed by stitches. This placed the dog's leg on nearly the same plane as the man's leg. The wounds were drained, as they were not aseptic; all the stronger tendons in each leg of the dog were severed by a subcutaneous incision; the wounds were dressed with gauze, and the other three legs of the dog were incased in plaster of paris separately; the dog and the leg of the man were incased in a plaster cast, extending to the knee of the patient. A space was left beneath the dog to prevent soiling from the urine or feces; a window was left at the wound, so that dressings could be changed. The plaster cast was made heavy and strong by imbedding splints in the cast. The patient was returned to the ward. The man suffered very little pain, or inconvenience, except for two or three days, as the dog was restless, and would attempt to move, and the more the dog would move, the more pain was not only inflicted on the patient but on himself. He soon realized this, so that it was not necessary to give any morphine to the dog after the fourth day. The dog and man became very much "attached" to each other.

The patient's general condition gradually improved, and his temperature and pulse remained about normal after the third day.

To keep the dog tightly incased in the cast, it was necessary to pack cotton and gauze around him, as he lost considerable flesh.

Five weeks later the man was again placed under medullary narcotics, and the dog under ether; the cast was removed, the skin and muscles were separated from the dog's leg, and the two bones divided near the joint, and were placed in contact with the astragalus; the skin and deeper structures were united, except at point of drainage, which slowly closed by granulation, except at the lower angle a fistula remained, through which a small fragment of one of the bones passed, which was broken at the time the dog was detached; this occurred four months later.

The skiagraphs taken three months after the operation show the callus around the bones, the dog's bone remaining in the center. A recent one shows where the lower end of the tibia has



JUST BEFORE INCASING IN PLASTER.

the tibia denuded of periosteum and the end necrotic. The lower five inches of this bone was removed with a chain saw. The fibula had united; the wound was swabbed with tincture of iodin and drained. The patient was returned to the ward, the leg placed in fracture box, with little doubt but that it would be necessary to amputate.

In a few days the parts improved, and on the 28th day of the same month the patient was again placed under medullary narcotics, the periosteum resected back, and the end of the bone freshened, so there was free hemorrhage; then a black-and-tan dog, of medium size, which had been prepared by trimming the hair, bathing and shaving the forelegs, was placed under ether, and the left foreleg thoroughly cleansed and amputated just

formed bone corresponding in size to the tibia.

The patient walks about with his cane, but can get around without it, and has a very useful leg.

This case demonstrates that the defects of bone in man can be successfully transplanted from the lower animal by means of vascular attachment.

Secretaries of other County Societies are requested to read the report of Humboldt County Society published in this issue. If similar reports would be furnished by all the county societies, that department of the JOURNAL could be made quite as interesting and valuable as the very much alive Humboldt society makes it.

**Overstudy and the Nervous Child**—We do not much believe in the intellect, the morals or the pedagogics of the colt-breakers or the boy-breakers. There are better ways to break a horse or a child than to break its will, and the teacher that entertains such diabolic theories should be "broken." The noteworthy fact about the whole discussion is the utter omission from a hundred papers and discussions of the most important element of the entire matter. There are, it is true, many other factors; there is really overstudy and overpressure, but the one cause of the nervous child which is ignored, but which is as prolific a source of evil as perhaps all others combined, is eye-strain.—*American Medicine*.

**Antiquity of Hospitals**—Many centuries before the Christian era there existed in India and Ceylon institutions which performed the functions of hospitals (*Real-Encyclopaedia*, Eulenberg). They were built and maintained by the Buddhists. In the Scriptures there is a mention of what the Hebrews called Bethesda, but this was nothing more than a few rude huts in the neighborhood of a mineral spring supposed to have healing properties. According to Lecky (*History of European Morals*), the first hospital was founded by a Roman lady named Fabiola, about the fourth century, at Rome. Soon after another hospital was founded by St. Pammachus, and another by St. Basil at Caesarea. During the crusades numerous hospitals arose in all parts of Europe. San Spiritu, built by Innocent III, was erected in 1204 at Rome. The first hospital in England was built by Lanfranc, Archbishop of Canterbury, in 1080. The first hospital of any size erected in America was the Pennsylvania Hospital in Philadelphia, begun in 1751 by Dr. Bond and Benjamin Franklin.—*Philadelphia Medical Journal*.

**Surgical Hint**—Primary syphilis of the fingers and hands, for obvious reasons, occurs more frequently in physicians than in any other class of people. Hence, no physician is justified in failing to disinfect his hands with the utmost care after every examination of male or female genital regions or of mucous membranes. The worst way of diagnosing syphilis is by a culture experiment on the doctor himself.—*Journal of Surgery*.

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| Dukes, C. A.     | Oakland                 | Harbert, E.                             | Stockton                                | Kohlmors, H.                          | Oakland                  |           |
| Dundas, R. C.    | 809 Downey, L. A.       | Hare, G. A.                             | Fresno                                  | Kreutzmann, H.                        | 1018 Sutter, S. F.       |           |
| Dunn, E. C.      | Fresno                  | Harpster, J. N.                         | San Gabriel                             | Krone, C. R.                          | Oakland                  |           |
| Dunn, J. P. H.   | Oakland                 | Harris, H.                              | 502 Sutter, S. F.                       | Krotznyer, M.                         | 1209 Sutter, S. F.       |           |
| Dunsmoor, J. M.  | 231 N. Grand, L. A.     | Harris, J. T.                           | San Jose                                | Krull, F.                             | Sacramento               |           |
| Dunsmoor, N. C.  | 231 N. Grand, L. A.     | Harrison, E. G.                         | 705 Sutter, S. F.                       | Kuckein, F.                           | 233 Geary, S. F.         |           |
| Easton, D. E. F. | Parrott Bldg, S. F.     | Harrison, S. I.                         | 2740 California, S. F.                  | Kugeler, H.                           | 813 Sutter, S. F.        |           |
| Eaton, F. F.     | 590 Sutter, S. F.       | Harry, C. R.                            | Stockton                                | Kuhlmam, C. G.                        | 338 Eddy, S. F.          |           |
| Eaton, F. B.     | 590 Sutter, S. F.       | Hart, A. C.                             | Sacramento                              | Kurtz, C.                             | Douglas Bldg, L. A.      |           |
| Ebright, G. E.   | 590 Sutter, S. F.       | Hart, H. H.                             | 123 Ellis, S. F.                        | Kurtz, J.                             | Douglas Bldg, L. A.      |           |
| Edelman, D. W.   | Bradbury Bldg, L. A.    | Harvey, W. P.                           | 569 Haight, S. F.                       | Kuser, H.                             | Novato                   |           |
| Edwards, W. A.   | Coronado                | Hassler, W. C.                          | 528 Sutter, S. F.                       | Kuster, C. E.                         | 110 W. 15th, L. A.       |           |
| Elchier, A.      | 1242 Mission, S. F.     | Hasson, D. W.                           | Buena Park                              | Lacy, J. M.                           | Santa Ana                |           |
| Ellis, H. Bert.  | Bradbury Bldg, L. A.    | Hatch, F. W.                            | Sacramento                              | Lagan, H.                             | 2606 Folsom, S. F.       |           |
| Ellis, L. T.     | 731 W. 11th, L. A.      | Hawkins, G.                             | Reidley                                 | Laird, M. J.                          | Fresno                   |           |
| Ellis, T. E.     | Eisnore                 | Hawkins, W. J. E. Spreckels Bldg, S. F. | Hawkins, W. J. E. Spreckels Bldg, S. F. | Lane, L. M.                           | 1214 Hyde, S. F.         |           |
| English, C. F.   | 2417 Howard, S. F.      | Hayden, T. M.                           | Fresno                                  | Langdon, S. W. R. Jr.                 | Stockton                 |           |
| Evans, G. H.     | 807 Sutter, S. F.       | Haynes, J. R.                           | 929 Main, L. A.                         | Lanterman, R. A.                      | 357 S. Spring, L. A.     |           |
| Evarts, R. M.    | Santa Ynez              | Henderson, A. M.                        | Sacramento                              | Lanz, P. R.                           | Oakland                  |           |
| Ewer, E. N.      | Oakland                 | Henderson, J. J.                        | 813 Sutter, S. F.                       | Lasher, G. W. Hollenbeck Hotel, L. A. | Latta, L.                | San Diego |
| Exline, J. W.    | 5913 Pasadena, L. A.    | Hereford, W. S.                         | 1115 Sutter, S. F.                      | Latta, S. E.                          | Stockton                 |           |
| Falk, C. C.      | Eureka                  | Herrington, H.                          | 467 Geary, S. F.                        | Laubersheimer, G. A.                  | 316 W 6th, L. A.         |           |
| Falk, C. O.      | Eureka                  | Herzstern, M.                           | 801 Sutter, S. F.                       |                                       |                          |           |

|                    |                        |                                      |                         |                     |                         |
|--------------------|------------------------|--------------------------------------|-------------------------|---------------------|-------------------------|
| Laughlin, C.       | 406 Sutter, S. F.      | Meux, T. R.                          | Fresno                  | Powell, D.          | Marysville              |
| Lazard, E. M.      | BrADBury Bldg, L. A.   | Meyer, A. G.                         | 2502 Folsom, S. F.      | Power, H. D'A.      | 1025 Sutter, S. F.      |
| Leisenring, L. M.  | Sacramento             | Meyer, J. H.                         | San Bernardino          | Powers, G. H.       | 533 Sutter, S. F.       |
| Lefand, T. B.      | 246 Sutter, S. F.      | Meyers, H.                           | 751 Sutter, S. F.       | Powers, L. M.       | City Hall, L. A.        |
| Lendrum, B. A.     | Sacramento             | Meyers, R. C.                        | 1701 Powell, S. F.      | Pratt, A. H.        | Oakland                 |
| Lengfeld, A. L.    | 202 Stockton, S. F.    | Millar, C. F.                        | 713 Market, S. F.       | Proschold, H.       | 400 Golden Gate, S. F.  |
| Leonard, E. L.     | 737 Buena Vista, L. A. | Miller, A. V.                        | Ferndale                | Purlenky, G. P.     | 404 3d, S. F.           |
| Leonard, J. V.     | 1114 Folsom, S. F.     | Miller, C. H.                        | San Leandro             | Quinan, C.          | 751 Sutter, S. F.       |
| Levin, Z.          | 43 6th, S. F.          | Miller, F. W. Conser, L. Bldg, L. A. | Quint, S. J.            | Potomac Bldg, L. A. |                         |
| Levison, C. G.     | 1316 Van Ness, S. F.   | Miller, R. W. Laughlin Bldg, L. A.   | Radebaugh, J. M.        | Pasadena            |                         |
| Lewis, W. M.       | Wilcox Bld, L. A.      | Mills, C. W.                         | Aracata                 | Rattan, F.          | Martinez                |
| Lewitt, W. B.      | 500 Van Ness, S. F.    | Mills, C. W.                         | 1016 Sutter, S. F.      | Ray, D. F.          | Stockton                |
| Libby, A. A.       | Pasadena               | Milton, J. L.                        | Oakland                 | Redington, V.       | Oakland                 |
| Lillencrantz, A.   | Oakland                | Moffitt, H. C.                       | 606 Sutter, S. F.       | Regensberger, M.    | 803 Sutter, S. F.       |
| Lillencrantz, G.   | Oakland                | Mohun, C. C.                         | 1817 Eddy, S. F.        | Reinhardt, G. F.    | Berkeley                |
| Lilley, J. F.      | Oakland                | Montgomery, D. W.                    | 1301 V Ness, S. F.      | Remondino, P. C.    | San Diego               |
| Lindsay, W.        | 315 W. 6th, L. A.      | Montgomery, J.                       | 236 Bush, S. F.         | Rendon, V.          | Lankershim Bldg, L. A.  |
| Lindsay, W. K.     | Courtland              | Moody, M. W.                         | 2520 Howard, S. F.      | Rethers, T. C.      | Sp. Valley Bldg, S. F.  |
| Lindsay, P. S.     | Santa Monica           | Moore, M. L.                         | Bradbury Bldg, L. A.    | Reynolds, G. P.     | Alameda                 |
| Liverman, J. R.    | Kingsburg              | Moore, W. G.                         | 751 Sutter, S. F.       | Reynolds, F. W.     | San Pedro               |
| Lobingier, A. S.   | Potomac Bldg, L. A.    | Morrisssey, J. G.                    | Callaghan Bldg, S. F.   | Reynolds, H. B.     | 751 Sutter, S. F.       |
| Lockwood, C. D.    | Douglas Bldg, L. A.    | Morrow, H.                           | 596 Sutter, S. F.       | Richter, C. M.      | 640 Geary, S. F.        |
| Loofbourrow, T. L. | Eureka                 | Morrison, N. A.                      | Fowler                  | Richter, L.         | Laughlin Bld, L. A.     |
| Look, H. H.        | Sacramento             | Morrison, N. H.                      | Bradbury Bldg, L. A.    | Rickey, A. W.       | Port Costa              |
| Lord, F. K.        | Camptonville           | Morse, F. W.                         | Oakland                 | Ridgon, R. L.       | Hearst Bldg, S. F.      |
| Lucas, W. T.       | Santa Maria            | Morton, A. W.                        | Parrott Bldg, S. F.     | Riley, C. A.        | Redlands                |
| Luce, D.           | Banta                  | Mosgove, A. M.                       | 1212 Sutter, S. F.      | Riley, J. S.        | Port Costa              |
| Lund, G. J.        | Lankershim Bldg, L. A. | Moss, J. M.                          | 694 Sutter, S. F.       | Riley, W. C.        | Flood Bldg, S. F.       |
| Lusson, P. M.      | San Jose               | Moulton, D. H.                       | Sacramento              | Rinchart, J. F.     | Oakland                 |
| Macdonald, G. C.   | 32 O'Farrell, S. F.    | Moulton, E. S.                       | Marysville              | Rinne, F. A.        | 1312 Market, S. F.      |
| Mace, L. S.        | 406 Sutter, S. F.      | Muller, H. E.                        | Oakland                 | Ritter, M. B.       | Berkeley                |
| MacGowan, G.       | Douglas Bldg, L. A.    | Murletta, A. J.                      | Douglas Bldg, L. A.     | Rixford, E.         | 1400 Van Ness, S. F.    |
| Macleish, A. L.    | Bradbury Bldg, L. A.   | Murphy, C. W. Cons, L. Bldg, L. A.   | Roberts, W. H.          | Pasadena            |                         |
| Mac Monagle, B.    | 590 Sutter, S. F.      | Murphy, W. W.                        | 307 S. B'dwy, L. A.     | Robertson, J. W.    | Livermore               |
| MacNeil, H. G.     | 1315 Figueroa, L. A.   | Musser, F. R.                        | Oakland                 | Roblee, N. M.       | Riverside               |
| Magee, C. L.       | 831 S. Flower, L. A.   | Myers, C.                            | Hellman Bld, L. A.      | Rochex, J.          | Tomasles                |
| Magee, T. L.       | San Diego              | Nadeau, H.                           | McDonald Bld, L. A.     | Roes, C. H.         | 360 Geary, S. F.        |
| Maguire, T. M.     | 46 O'Farrell, S. F.    | Nagle, G. S.                         | 1220 Sutter, S. F.      | Rogers, A. C.       | Bryson Bld, L. A.       |
| Maher, J.          | Oakland                | Nast, J. E.                          | 1354 Folsom, S. F.      | Rogers, L.          | Douglas Bldg, L. A.     |
| Maher, T. D.       | 502 Sutter, S. F.      | Neff, F. F.                          | Concord                 | Rood, V. D.         | San Diego               |
| Malaby, Z. T.      | 576 Sutter, S. F.      | Nelson, C. R.                        | Towles                  | Rooney, R. F.       | Auburn                  |
| Mann, C. S.        | 609 Sutter, S. F.      | Nelson, L.                           | 1116 Sutter, S. F.      | Rosenberger, J. D.  | Sanger                  |
| Mansfield, E.      | Santa Barbara          | Newman, S. C.                        | 901 Sutter, S. F.       | Rosencrantz, N.     | Hearst Bldg, S. F.      |
| Manson, J. I.      | 917 Van Ness, S. F.    | Newman, S.                           | Santa Barbara           | Rosenstirn, J.      | 932 Sutter, S. F.       |
| Mardis, B. A.      | Forest Hill            | Newmark, L.                          | 594 Sutter, S. F.       | Rosenthal, C. H.    | 636 Baker, S. F.        |
| Martin, A. H.      | Walnut Grove           | Newmark, P.                          | Bradbury Bld, L. A.     | Ross, T.            | Sacramento              |
| Martin, H. R.      | Riverside              | Nichols, H. L.                       | Sacramento              | Roth, L.            | McDonald Bld, L. A.     |
| Martin, J. L.      | Fresno                 | Nichols, V. D.                       | San Diego               | Rothschild, M.      | 1205 Sutter, S. F.      |
| Martin, R. S.      | 1617 Page, S. F.       | Nicholson, A. R.                     | Fresno                  | Rowe, C. H.         | Oakland                 |
| Martin, W. S.      | Sp. Val. Bldg, S. F.   | Nixon, A. W.                         | 865 S. Hill, L. A.      | Rowell, C.          | Fresno                  |
| Martindale, J. H.  | Laughlin Bldg, L. A.   | Noble, M.                            | 2394 Sutter, S. F.      | Rowell, G. B.       | San Bernardino          |
| Mather, S.         | 421 Powell, S. F.      | Noble, M. L.                         | 1126 W. 31st, L. A.     | Rowell, H. N.       | Berkeley                |
| Mather, E. N.      | Douglas Bldg, L. A.    | Nourse, B. S.                        | Repreesa                | Royer, D. F.        | Orange                  |
| Mattison, F. E.    | Pasadena               | Nusbaum, A.                          | 320 Ellis, S. F.        | Russ, R.            | 751 Sutter, S. F.       |
| Maupin, J. L.      | Fresno                 | Nusbaum, P. S.                       | Oakland                 | Russel, T. G.       | 751 Sutter, S. F.       |
| Maupin, W. T.      | Fresno                 | O'Connell, M. W.                     | 110 Devisadero, S. F.   | Russell, A. J.      | Oakland                 |
| Maxson, W. H.      | Oakland                | O'Connor, J. H.                      | Parrott Bldg, S. F.     | Russell, P. N.      | Fresno                  |
| Maybee, M.         | Riverside              | Ohrwall, H.                          | 502 Sutter, S. F.       | Ryer, M. B.         | 546 Turk, S. F.         |
| Mayer, O. J.       | 822 Sutter, S. F.      | Oliver, H. R.                        | 1325 Sacramento         | Rykogel, H. A. L.   | 590 Sutter, S. F.       |
| Maynard, H. H.     | Wilcox Bldg, L. A.     | Oliver, J. A.                        | 1825 Turk, S. F.        | Salomon, M.         | 334 Geary, S. F.        |
| Mays, A. H.        | Sausalito              | O'Neill, J. A.                       | C & C Hosp.             | Sample, T. N.       | Fresno                  |
| Mayon, J. L.       | Oakland                | Ophuls, W.                           | Lane Hosp.              | Sampson, A. F.      | 1220 Sutter, S. F.      |
| McArthur, P. R.    | 10th & Figueroa, L. A. | Orrella, F. R.                       | 406 Sutter, S. F.       | Sanborn, F. A.      | 825 S. B'dwy, L. A.     |
| McArthur, W. T.    | 10th & Figueroa, L. A. | Orme, H. S.                          | Douglas Bld, L. A.      | Sanborn, W. K.      | Oakland                 |
| McBride, J. H.     | Potomac Bldg, L. A.    | Orre, R. H.                          | 2104 Howard             | Sanders, G. L.      | 409 1/3d, S. F.         |
| McCarthy, C. F.    | Sp. Val. Bldg, S. F.   | Osborne, A. E.                       | Santa Clara             | Sanderson, A. J.    | 1201 Van Ness, S. F.    |
| McCarthy, I. A.    | Corona                 | Osmun, W. F.                         | 1604 Leavenworth, S. F. | Sanderson, H. E.    | Stockton                |
| McChesney, J. G.   | 1303 V Ness, S. F.     | Ootwater, S.                         | Riverside               | Sassella, B.        | Allen Bld, L. A.        |
| McCleavey, T. C.   | Berkeley               | Overend, E. J.                       | Oakland                 | Sawyer, F. E.       | 406 Sutter, S. F.       |
| McConnell, E. G.   | 575 Sutter, S. F.      | Pahl, P. C. H.                       | 920 W. 7th, L. A.       | Sawyer, W. B.       | Riverside               |
| McCoy, T. J.       | Bryson Bld, L. A.      | Partridge, H.                        | 2632 Howard, S. F.      | Schloss, A.         | Parrott Bldg, S. F.     |
| McCullough, A. M.  | Laughlin Bld, L. A.    | Paul, J. W.                          | Santa Clara             | Schmitt, L. S.      | U.S. Marine Hosp, S. F. |
| McDermott, W. P.   | 1391 Valencia, S. F.   | Pallette, E. M.                      | Hellman Bld, L. A.      | Schmitz, J.         | 3000 S. Main, L. A.     |
| McDonald, T. P.    | 1128 Sutter, S. F.     | Palmer, E. O.                        | Hollywood               | Schabel, M.         | Newcastle               |
| McDougal, W. D.    | San Jose               | Parker, A. S.                        | Riverside               | Schoell, A. J.      | 1336 S. Market, L. A.   |
| McGarry, J. A.     | 660 W. Wash'ton, L. A. | Parker, P. J.                        | San Diego               | Schwalbe, C.        | 1002 S. Olive, L. A.    |
| McGavren, H. S.    | Sacramento             | Parkinson, J. H.                     | Sacramento              | Scott, F.           | Belvedere               |
| McGettigan, C. D.  | 223 Powell, S. F.      | Parsegan, J. H.                      | Fresno                  | Scott, G. H.        | Redlands                |
| McIntosh, A. M.    | 717 Jones, S. F.       | Partridge, H.                        | 2632 Howard, S. F.      | Scott, R. T.        | 1205 Valencia, S. F.    |
| McKee, A. B.       | 533 Sutter, S. F.      | Paul, J. W.                          | Santa Clara             | Seaman, E. D.       | Bullard Bld, L. A.      |
| KcKee, J. A.       | Sacramento             | Pawlicki, C. F.                      | 705 Sutter, S. F.       | Seiber, C. W.       | Laughlin Bld, L. A.     |
| KcKenzie, G.       | Concord                | Payne, F. H.                         | Berkeley                | Seifert, G. W.      | San Jose                |
| Kckibon, R. E.     | Letota                 | Payne, R. W.                         | Sp. Val. Bldg, S. F.    | Sexton, C. L.       | 105 E. 1st, L. A.       |
| Kckinon, G. W.     | Arleta                 | Payton, W. B.                        | Ferris                  | Seymour, F. A.      | 307 S. B'dwy, L. A.     |
| KcLaren, J. L.     | Eureka                 | Pedlar, A. J.                        | Fresno                  | Seymour, J. H.      | 659 S. Hill, L. A.      |
| KcLaughlin, J. H.  | Angels                 | Peers, R. A.                         | Colfax                  | Seymour, J. H.      | 1301 Castro, S. F.      |
| KcLean, A. D.      | 123 Ellis, S. F.       | Peery, T. P.                         | Yuba City               | Shannon, J. M.      | Oakland                 |
| KcLean, D. L.      | Sacramento             | Perron, W. L.                        | Blue Lake               | Sharp, J. G.        | 590 Sutter, S. F.       |
| Kedlock, J. R.     | Santa Ana              | Perry, A. W.                         | 1236 Market, S. F.      | Sherk, H. H.        | Pasadena                |
| Kedlock, R. A.     | Oakland                | Perry, W. F.                         | Corona                  | Sherman, H. M.      | 1303 Van Ness, S. F.    |
| Keminger, L. L.    | 246 Sutter, S. F.      | Petrie, F. B.                        | 211 S. Calif., S. F.    | Shieles, G. F.      | Sp. Val. Bldg, S. F.    |
| Kelchonan, A. J.   | Fresno                 | Philip, J. H.                        | 121 Geary, S. F.        | Shieles, J. W.      | Merritt Bldg, S. F.     |
| Kemton, L.         | Wheatland              | Philip, W. S.                        | Con'st Life Bldg        | Shorb, J. DeB.      | Bullard Bld, L. A.      |
| Kemmitt, G. W.     | 1220 Sutter, S. F.     | Phipps, C.                           | 1211 Jackson, S. F.     | Shreck, J. A.       | Santa Barbara           |
| Kemmitt, W. F. Jr. | 1220 Sutter, S. F.     | Pierce, C. W.                        | 315 W. 6th, L. A.       | Shuey, S. I.        | Oakland                 |
| Kemlock, J. R.     | Santa Ana              | Piper, H. E.                         | Mt. Zion Hosp, S. F.    | Shumate, T. E.      | 794 Sutter, S. F.       |
| Kemros, J. J.      | Oakland                | Pisched, K.                          | Crocker Bldg, S. F.     | Shurtliff, F. C.    | 221 W. 5th, L. A.       |
| Kemniger, L. L.    | 307 Sutter, S. F.      | Plymire, D. B.                       | 528 Sutter, S. F.       | Sidebotham, H.      | Santa Barbara           |
| Kemnongan, A. J.   | Fresno                 | Pond, G. P.                          | Sp. Valley Bldg, S. F.  | Sill, E. R.         | Oakland                 |
| Kemton, L.         | Wheatland              | Pond, H. M.                          | Alameda                 | Simmons, G. C.      | Sacramento              |
| Kemmitt, E. S.     | 2323 Washington, S. F. | Poore, J. E.                         | Sacramento              | Simmons, G. L.      | Sacramento              |
| Kemmitt, G. W.     | 590 Sutter, S. F.      | Porter, W. S.                        | Oakland                 | Simmons, S. E.      | Sacramento              |
| Kemmer, O. G.      | Bradbury Bld, L. A.    | Pottenger, F. M.                     | Bradbury Bld, L. A.     | Simmons, H. M.      | 618 Grove, S. F.        |
| Kemmer, B. J.      | Stockton               | Powell, B. J.                        | Stockton                | Simon, J.           | 813 Sutter, S. F.       |

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|---------------------------|--------------------------|----------------|--------------------|--------------------------|
| Simpson, J. A.            | 618 20th, S. F.          | Eureka         | Visscher, L. G.    | Laughlin Bldg, L. A.     |
| Sinclair, E. W.           |                          |                | Von Adelung, E.    | Oakland                  |
| Skeel, D. L.              | Laughlin Bldg, L. A.     | Folsom         | Von Hoffman, C. A. | 1014 Sutter, S. F.       |
| Slaughter, H. J.          |                          |                | Voorsanger, W. C.  | 1249 Franklin, S. F.     |
| Smiley, V. M.             | 1214 Hyde, S. F.         |                | Vowinkel, F. W.    | .903 Van Ness, S. F.     |
| Smith, E. R.              | Bradbury Blk, L. A.      |                | Wade, W. L.        | .421 S. Hill, L. A.      |
| Smith, D.                 |                          | Livermore      | Wadsworth, C. C.   | 1104 V. Ness, S. F.      |
| Smith, E. H.              |                          | Santa Clara    | Wagner, H. L.      | .522 Sutter, S. F.       |
| Smith, K.                 |                          | San Leandro    | Wagner, J.         | .483 Valencia, S. F.     |
| Smith, R. J.              |                          | Mentone        | Wagstaff, M.       | .615 Downey, L. A.       |
| Smith, W. O.              |                          | Alameda        | Wahl, H. I.        | .415 Turk, S. F.         |
| Smythe, M.                |                          | Stockton       | Walker, B. F.      | Laton                    |
| Snedigar, W. S.           |                          | Stockton       | Walker, J. R.      | Fresno                   |
| Sobey, A. L.              | .3524 20th, S. F.        |                | Walker, S. L.      | .315 6th, L. A.          |
| Solland, A.               | Con'sr Life Bldg, L. A.  |                | Wall, W. B.        | Tustin                   |
| Somers, G. B.             | .123 Ellis, S. F.        |                | Wallace, W. H.     | Eureka                   |
| Southard, C. O.           | 1220 Sutter, S. F.       |                | Walrath, G. B.     | .1014 Figueroa, L. A.    |
| Southard, W. F.           | 1220 Sutter, S. F.       |                | Walsh, W. J.       | Mt. Zion Hosp., S. F.    |
| Southworth, H. E.         |                          | Stockton       | Wanzer, L. M. F.   | .205 Taylor, S. F.       |
| Southworth, M. A.         |                          | San Jose       | Waterman, H. J.    | .1135 Polk, S. F.        |
| Spalding, A. B.           | .751 Sutter, S. F.       |                | Watkins, J. T.     | .502 Sutter, S. F.       |
| Spencer, J. C.            | .590 Sutter, S. F.       |                | Watt, F. W.        | Walnut Creek             |
| Sperry, M. A.             | .1201 Sutter, S. F.      |                | Wehrly, J.         | Santa Ana                |
| Sprague, F. R.            | .1201 Sutter, S. F.      |                | Well, C.           | .828 Sutter, S. F.       |
| Sprague, W. P.            | .610 Jones, S. F.        |                | Welch, C.          | Douglas, Bldg, L. A.     |
| Spriggs, L. W.            | .315 Van Ness, S. F.     |                | Wemple, E. L.      | .751 Sutter, S. F.       |
| Stafford, A. A.           |                          | Alameda        | Wemple, E. L. Jr.  | .751 Sutter, S. F.       |
| Stafford, O. R.           |                          | Santa Ynez     | Werner, A. F.      | .2322 Sutter, S. F.      |
| Stapler, D. A.            | .1010 Sutter, S. F.      |                | Wheeler, P. L.     | Oakland                  |
| Starr, F. R.              | .651 Vallejo, S. F.      |                | White, D. W.       | San Bernardino           |
| Stearns, V. J.            | .417½ 3d, S. F.          |                | White, G. A.       | Sacramento               |
| Steddon, F. W.            | Laughlin Bldg, L. A.     |                | White, J.          | Auburn                   |
| Stehman, H. B.            | Potomac Blk, L. A.       |                | Wiard, W. F.       | Sacramento               |
| Steinwand, A. W.          |                          | Elmira         | Wickman, W. J.     | San Rafael               |
| Steltzner, E.             | Phelan Bldg, S. F.       |                | Wilbur, R. L.      | Palo Alto                |
| Stephen, J. I.            | .813 Sutter, S. F.       |                | Wilcox, O. J.      | Oakland                  |
| Stephens, W. B.           | .231 Post, S. F.         |                | Wilde, K.          | Laughlin Bldg, L. A.     |
| Stern, A. A.              | .246 Sutter, S. F.       |                | Willard, W. P.     | Sutter & Fillmore, S. F. |
| Stevens, W. E.            | .1403 Calif., S. F.      |                | Williams, F.       | .1781 Haight, S. F.      |
| Stevenson, G. L.          | Sacramento               |                | Williams, R.       | Douglas Bldg, L. A.      |
| Stewart, J. T.            | Frost Bldg, L. A.        |                | Williams, R. B.    | Oakland                  |
| Stewart, J. T.            | .231 Post, S. F.         |                | Williams, T. A.    | Oakland                  |
| Still, J. J.              | Douglas Bldg, L. A.      |                | Williamson, J. M.  | .21 Powell, S. F.        |
| Stillman, S.              | .8 Geary, S. F.          |                | Willits, E. A.     | Grant Bldg, L. A.        |
| Stimson, J.               | .1312 Folsom, S. F.      |                | Willits, E. K.     | .1261 Sutter, S. F.      |
| Stinson, J. C.            | .533 Sutter, S. F.       |                | Wills, W. LeM.     | Wilcox Blk, L. A.        |
| Stivers, C. G.            | .315 W. 6th, L. A.       |                | Wilson, A. D.      | Fowler                   |
| Stirewalt, H. W.          | .305 Kearny, S. F.       |                | Wilson, F. E.      | Westminster              |
| Stoddard, C. S.           | Santa Barbara            |                | Wilson, F. P.      | .751 Sutter, S. F.       |
| Stone, C. E.              |                          | Marysville     | Wilson, W. L.      | Milpitas                 |
| Stone, E. E.              |                          | Napa           | Winchester, R. F.  | Santa Barbara            |
| Strader, H. W.            |                          | Sacramento     | Wing, H. B.        | Bradbury Blk, L. A.      |
| Stratton, G. W.           |                          | Marysville     | Winterberg, W.     | .1208 Van Ness, S. F.    |
| Stratton, R. T.           |                          | Oakland        | Winterberg, W. H.  | .813 Sutter, S. F.       |
| Strunsky, M.              | .901 Gol Gate, S. F.     |                | Wislocki, E.       | San Jose                 |
| Sullivan, W. N.           | .751 Sutter, S. F.       |                | Witherbee, O. O.   | Frost Blk, L. A.         |
| Sutherland, F. B.         | Phelan Bldg, S. F.       |                | Witter, G. F.      | San Jose                 |
| Sutliff, F. B.            | Sacramento               |                | Wood, J. W.        | Long Beach               |
| Swan, B. R.               | Mut. Life Bldg, S. F.    |                | Woodbridge, B.     | Rocklin                  |
| Sweet, E. B.              | .757 S. Burlingtn, L. A. |                | Woods, A. M.       | .1135 Polk, S. F.        |
| Taggart, C. F.            | Douglas Blk, L. A.       |                | Woodward, A. P.    | .1220 Sutter, S. F.      |
| Taggart, H. W.            | Stockton                 |                | Woolsey, C.        | Sp. Valley Bldg, S. F.   |
| Tait, D.                  | .1054 Post, S. F.        |                | Woolsey, E. H.     | .1035 Valley, S. F.      |
| Tate, C. F. S.            | Bullard Blk, L. A.       |                | Woolsey, F. R.     | Berkeley                 |
| Taylor, A. E.             | .2019 Broderick, S. F.   |                | Woolsey, M. H.     | Sp. Val. Bldg, S. F.     |
| Taylor, A. H.             | .123 Ellis, S. F.        |                | Wright, H. E.      | Sacramento               |
| Taylor, A. M.             | .1106 Post, S. F.        |                | Wright, H. J. B.   | .805 Valencia, S. F.     |
| Taylor, O. N.             | .3014 Sacramento, S. F.  |                | Wymore, W. W.      | .1031 Downey, L. A.      |
| Taylor, R. G.             | Bradbury Blk, L. A.      |                | Yost, F. O.        |                          |
| Terry, W. I.              | .751 Sutter, S. F.       |                | Young, J. D.       | .404 Post, S. F.         |
| Thayer, J. W.             |                          | Gilroy         | Zillmer, A. L.     | .1009 Mission, S. F.     |
| Theile, W. C. A.          | .974 Beaumdy, L. A.      |                | Zobel, A. J.       | .1403 California, S. F.  |
| Thomas, E. W.             | .439 3d, S. F.           |                |                    |                          |
| Thomas, H. G.             |                          | Oakland        |                    |                          |
| Thomas, P. M.             | .813 Sutter, S. F.       |                |                    |                          |
| Thompson, W.              |                          | San Bernardino |                    |                          |
| Thorne, W. M.             |                          |                |                    |                          |
| Thorne, W. S.             | .813 Sutter, S. F.       |                |                    |                          |
| Thornton, D. D.           | Douglas Bldg, L. A.      |                |                    |                          |
| Thorpe, L. S.             | Wilcox Bldg, L. A.       |                |                    |                          |
| Titchworth, J. C.         | .2924 Bush, S. F.        |                |                    |                          |
| Todd, J. H.               |                          | Oakland        |                    |                          |
| Todd, T. M.               |                          | Auburn         |                    |                          |
| Topping, F. P.            | .533 Sutter, S. F.       |                |                    |                          |
| Trask, S.                 | .321 Geary, S. F.        |                |                    |                          |
| Troppman, C. M.           | .4206 Market, S. F.      |                |                    |                          |
| Trowbridge, T. H.         | Fresno                   |                |                    |                          |
| Trueworth, J. E.          | .813 Sutter, S. F.       |                |                    |                          |
| Trueworth, J. W.          | Byrne Blk, L. A.         |                |                    |                          |
| Tuttle, S. P.             | Sp. Val. Bldg, S. F.     |                |                    |                          |
| Turner, J. S.             | Gates Blk, L. A.         |                |                    |                          |
| Twitchell, E. W.          | Sacramento               |                |                    |                          |
| Tyler, H.                 | .Redlands                |                |                    |                          |
| Tyler, J. A.              | Anaheim                  |                |                    |                          |
| Uttley, J. H.             | Bradbury Bldg, L. A.     |                |                    |                          |
| Valla, A. Z.              | .127 N. Main, S. F.      |                |                    |                          |
| Van Danburg, J.           | .406 Sutter, S. F.       |                |                    |                          |
| Van Dyke, E. C.           | .751 Sutter, S. F.       |                |                    |                          |
| Van Orden, K. P.          | Alameda                  |                |                    |                          |
| Van Orden, L.             |                          | Alameda        |                    |                          |
| Van Zwalenberg, C.        | Riverside                |                |                    |                          |
| Vaughan, C. E.            | Santa Barbara            |                |                    |                          |
| Veckl, V. G.              | .36 Geary, S. F.         |                |                    |                          |
| Vestal, H.                | Smartville               |                |                    |                          |
| Visscher, L. G.           | Laughlin Bldg, L. A.     |                |                    |                          |
| Von Adelung, E.           |                          | Oakland        |                    |                          |
| Von Hoffman, C. A.        | .1014 Sutter, S. F.      |                |                    |                          |
| Voorsanger, W. C.         | .1249 Franklin, S. F.    |                |                    |                          |
| Vowinkel, F. W.           | .903 Van Ness, S. F.     |                |                    |                          |
| Wade, W. L.               | .421 S. Hill, L. A.      |                |                    |                          |
| Wadsworth, C. C.          | .1104 V. Ness, S. F.     |                |                    |                          |
| Wagner, H. L.             | .522 Sutter, S. F.       |                |                    |                          |
| Wagner, J.                | .483 Valencia, S. F.     |                |                    |                          |
| Wagstaff, M.              | .615 Downey, L. A.       |                |                    |                          |
| Wahl, H. I.               | .415 Turk, S. F.         |                |                    |                          |
| Walker, B. F.             | Laton                    |                |                    |                          |
| Walker, J. R.             | Fresno                   |                |                    |                          |
| Walker, S. L.             | .315 6th, L. A.          |                |                    |                          |
| Wall, W. B.               | Tustin                   |                |                    |                          |
| Wallace, W. H.            | Eureka                   |                |                    |                          |
| Walrath, G. B.            | .1014 Figueroa, L. A.    |                |                    |                          |
| Walsh, W. J.              | Mt. Zion Hosp., S. F.    |                |                    |                          |
| Wanzer, L. M. F.          | .205 Taylor, S. F.       |                |                    |                          |
| Waterman, H. J.           | .1135 Polk, S. F.        |                |                    |                          |
| Watkins, J. T.            | .502 Sutter, S. F.       |                |                    |                          |
| Watt, F. W.               | Walnut Creek             |                |                    |                          |
| Wehrly, J.                | Santa Ana                |                |                    |                          |
| Well, C.                  | .828 Sutter, S. F.       |                |                    |                          |
| Welch, C.                 | Douglas, Bldg, L. A.     |                |                    |                          |
| Wemple, E. L.             | .751 Sutter, S. F.       |                |                    |                          |
| Wemple, E. L. Jr.         | .751 Sutter, S. F.       |                |                    |                          |
| Werner, A. F.             | .2322 Sutter, S. F.      |                |                    |                          |
| Wheeler, P. L.            | Oakland                  |                |                    |                          |
| White, D. W.              | San Bernardino           |                |                    |                          |
| White, G. A.              | Sacramento               |                |                    |                          |
| White, J.                 | Auburn                   |                |                    |                          |
| Whitney, J. D.            | Crocker Bldg, S. F.      |                |                    |                          |
| Wiard, W. F.              | Sacramento               |                |                    |                          |
| Wickman, W. J.            | San Rafael               |                |                    |                          |
| Wilbur, R. L.             | Palo Alto                |                |                    |                          |
| Wilcox, O. J.             | Oakland                  |                |                    |                          |
| Wilde, K.                 | Laughlin Bldg, L. A.     |                |                    |                          |
| Willard, W. P.            | Sutter & Fillmore, S. F. |                |                    |                          |
| Williams, F.              | .1781 Haight, S. F.      |                |                    |                          |
| Williams, R.              | Douglas Bldg, L. A.      |                |                    |                          |
| Williams, R. B.           | Oakland                  |                |                    |                          |
| Williams, T. A.           | Oakland                  |                |                    |                          |
| Williamson, J. M.         | .21 Powell, S. F.        |                |                    |                          |
| Willits, E. A.            | Grant Bldg, L. A.        |                |                    |                          |
| Willits, E. K.            | .1261 Sutter, S. F.      |                |                    |                          |
| Wills, W. LeM.            | Wilcox Blk, L. A.        |                |                    |                          |
| Wilson, A. D.             | Fowler                   |                |                    |                          |
| Wilson, F. E.             | Westminster              |                |                    |                          |
| Wilson, F. P.             | .751 Sutter, S. F.       |                |                    |                          |
| Wilson, W. L.             | Milpitas                 |                |                    |                          |
| Winchester, R. F.         | Santa Barbara            |                |                    |                          |
| Wing, H. B.               | Bradbury Blk, L. A.      |                |                    |                          |
| Winterberg, W.            | .1208 Van Ness, S. F.    |                |                    |                          |
| Winterberg, W. H.         | .813 Sutter, S. F.       |                |                    |                          |
| Wislocki, E.              | San Jose                 |                |                    |                          |
| Witherbee, O. O.          | Frost Blk, L. A.         |                |                    |                          |
| Witter, G. F.             | San Jose                 |                |                    |                          |
| Wood, J. W.               | Long Beach               |                |                    |                          |
| Woodbridge, B.            | Rocklin                  |                |                    |                          |
| Woods, A. M.              | .1135 Polk, S. F.        |                |                    |                          |
| Woodward, A. P.           | .1220 Sutter, S. F.      |                |                    |                          |
| Woolsey, C.               | Sp. Valley Bldg, S. F.   |                |                    |                          |
| Woolsey, E. H.            | .1035 Valley, S. F.      |                |                    |                          |
| Woolsey, F. R.            | Berkeley                 |                |                    |                          |
| Woolsey, M. H.            | Sp. Val. Bldg, S. F.     |                |                    |                          |
| Wright, H. E.             | Sacramento               |                |                    |                          |
| Wright, H. J. B.          | .805 Valencia, S. F.     |                |                    |                          |
| Wymore, W. W.             | .1031 Downey, L. A.      |                |                    |                          |
| Yost, F. O.               |                          |                |                    |                          |
| Young, J. D.              | .404 Post, S. F.         |                |                    |                          |
| Zillmer, A. L.            | .1009 Mission, S. F.     |                |                    |                          |
| Zobel, A. J.              | .1403 California, S. F.  |                |                    |                          |
| Dorais, L. P.             | .1001 Van Ness, S. F.    |                |                    |                          |
| Downes, C. S.             | .160 Gol Gate, S. F.     |                |                    |                          |
| Dwinnell, G. W.           | Montague                 |                |                    |                          |
| Edwards, T. C.            | Salinas                  |                |                    |                          |
| Evans, C. W.              | Modesto                  |                |                    |                          |
| Flife, J.                 | Red Bluff                |                |                    |                          |
| Fletcher, M. D.           | Alameda                  |                |                    |                          |
| Fouch, A.                 | N. San Juan              |                |                    |                          |
| Fowler, W. S.             | Bakersfield              |                |                    |                          |
| Gallimore, E.             | San Jose                 |                |                    |                          |
| Gardner, A. M.            | .771 Sutter, S. F.       |                |                    |                          |
| Gordon, S. B.             | Salinas City             |                |                    |                          |
| Hall, J. N. Jr.           | San Jose                 |                |                    |                          |
| Hanson, G. F.             | .233 Geary, S. F.        |                |                    |                          |
| Harris, F. W.             | .933 Market, S. F.       |                |                    |                          |
| Hashimoto, S.             | .321 Powell, S. F.       |                |                    |                          |
| Hawkins, J. H.            | St. Helena               |                |                    |                          |
| Hickman, W. L.            | Georgetown               |                |                    |                          |
| Higgins, R. M.            | .113 Polk, S. F.         |                |                    |                          |
| Hill, J. D.               | .1116 Sutter, S. F.      |                |                    |                          |
| Hirschfelder, J. O.       | .481 Geary, S. F.        |                |                    |                          |
| Hodghead, D. A.           | .1025 Sutter, S. F.      |                |                    |                          |
| Hopkins, W. E.            | .803 Sutter, S. F.       |                |                    |                          |
| Jackson, W. J.            | .44 3d, S. F.            |                |                    |                          |
| Jones, W. H.              | Santa Barbara            |                |                    |                          |
| Kahn, A. J.               | Napa                     |                |                    |                          |
| Keefe, J. J.              | .235 Kearny, S. F.       |                |                    |                          |
| Kellogg, W. H.            | .406 Sutter, S. F.       |                |                    |                          |
| Kent, R. W.               | Sonora                   |                |                    |                          |
| Key, J. W.                | Pinole                   |                |                    |                          |
| King, E. W.               | Talmage                  |                |                    |                          |
| Knowles, C. W.            | Sp. Val. Bldg, S. F.     |                |                    |                          |
| Koblick, S. B.            | .1220 Sutter, S. F.      |                |                    |                          |
| Lawhead, H. D.            | Woodland                 |                |                    |                          |
| LeFevre, J. P.            | .328 Montgomery, S. F.   |                |                    |                          |
| Legler, H. T.             | Oakland                  |                |                    |                          |
| Leonard, J. T.            | Merced                   |                |                    |                          |
| Lewis, A. P.              | Sutter Creek             |                |                    |                          |
| Loomis, M. L.             | Beckwith                 |                |                    |                          |
| Loper, A. N.              | St. Helena               |                |                    |                          |
| Lux, F. W.                | .Mills Bldg, S. F.       |                |                    |                          |
| Marquis, F. P. C.         | .1101 V. Ness, S. F.     |                |                    |                          |
| Mason, M.                 | Corning                  |                |                    |                          |
| Mattner, E. H.            | .505 V. Ness, S. F.      |                |                    |                          |
| McLean, A. D.             | .123 Ellis, S. F.        |                |                    |                          |
| McLeod, J. H.             | Santa Rosa               |                |                    |                          |
| McTaggart, M. F.          | Grass Valley             |                |                    |                          |
| Mills, H. C.              | C & C Hosp., S. F.       |                |                    |                          |
| Mountain, M. W.           | Placerville              |                |                    |                          |
| Mills, C. W.              | Etna Mills               |                |                    |                          |
| O'Bannon, R. W.           | Hollister                |                |                    |                          |
| Osborne, A. E.            | Glen Ellen               |                |                    |                          |
| Osborne, D. E.            | St. Helena               |                |                    |                          |
| Otto, G. W.               | Santa Barbara            |                |                    |                          |
| Owen, J. A.               | Red Bluff                |                |                    |                          |
| Palmer, H. P.             | Woodland                 |                |                    |                          |
| Parish, H. L.             | Calistoga                |                |                    |                          |
| Plymire, H. G.            | South San Francisco      |                |                    |                          |
| Prather, D. J.            | Bakersfield              |                |                    |                          |
| Pritchard, M.             | Sierra Vista             |                |                    |                          |
| Rantz, S. H.              | Placerville              |                |                    |                          |
| Reynolds, R. G.           | Upper Lake               |                |                    |                          |
| Robertson, J.             | .2104 Market, S. F.      |                |                    |                          |
| Rogers, J. B.             | North Bloomfield         |                |                    |                          |
| Ross, T. D.               | Ferndale                 |                |                    |                          |
| Rucker, H. N.             | Merced                   |                |                    |                          |
| Shank, G. A.              | Benicia                  |                |                    |                          |
| Sherman, W. N.            | Fresno                   |                |                    |                          |
| Stansbury, O.             | Chico                    |                |                    |                          |
| Stephens, W. B.           | .231 Post, S. F.         |                |                    |                          |
| Stuart, A. McG.           | Santa Rosa               |                |                    |                          |
| Taylor, W. S.             | Livermore                |                |                    |                          |
| Tebbets, J. H.            | Hollister                |                |                    |                          |
| Tickell, A. H.            | Nevada City              |                |                    |                          |
| Tinsman, C. M.            | Adin                     |                |                    |                          |
| Tooley, L. P.             | Willows                  |                |                    |                          |
| Von Werthern, J.          | .1501 Church, S. F.      |                |                    |                          |
| Voorhees, A. H.           | .1220 Sutter, S. F.      |                |                    |                          |
| Wakefield, W. F. B.       | Sutter, S. F.            |                |                    |                          |
| Waterson, P. K.           | Watsonville              |                |                    |                          |
| Webster, L. R.            | Oakland                  |                |                    |                          |
| Welges, L.                | Woodland                 |                |                    |                          |
| Whiting, H. C.            | Santa Cruz               |                |                    |                          |
| Wightman, W. M.           | .811 Chestnut, S. F.     |                |                    |                          |
| Wilson, H. F.             | .235 Kearny, S. F.       |                |                    |                          |
| Winegar, A. M.            | St. Helena               |                |                    |                          |
| Wood, E. G.               | Benicia                  |                |                    |                          |
| Wood, T. D.               | New York                 |                |                    |                          |
| Wrenn, J. Q.              | Placerville              |                |                    |                          |
| Wyckoff, H. G.            | Ukiah                    |                |                    |                          |
| Zelinsky, F.              | St. Helena               |                |                    |                          |
| <b>PERMANENT MEMBERS.</b> |                          |                |                    |                          |
| Bates, C. B.              | Santa Barbara            |                |                    |                          |
| Cluness, W. R.            | .406 Sutter, S. F.       |                |                    |                          |
| Cushing, C.               | .590 Sutter, S. F.       |                |                    |                          |
| Ellinwood, C. N.          | .715 Clay, S. F.         |                |                    |                          |
| Flint, T.                 | San Juan                 |                |                    |                          |
| Foot, E. N.               | Lockford                 |                |                    |                          |
| Hunt, R. M.               | Nevada City              |                |                    |                          |
| Neal, H.                  | San Miguel               |                |                    |                          |
| Rogers, S. J. S.          | Marysville               |                |                    |                          |
| Shurtliff, B.             | Napa                     |                |                    |                          |